HRS DOCUMENTATION RECORD -- REVIEW COVER SHEET

Site Name: Price Battery

EPA ID No: PAN000305679

Contact Persons

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Pathways, Components, or Threats Not Scored

The ground water, surface water, ground water to surface water, and air migration pathways were not scored in this Hazard Ranking System (HRS) evaluation. The ground water, ground water to surface water and air migration pathways were not evaluated because these pathways would not contribute significantly to the overall site score because a limited number of samples are currently available to document an observed release. The surface water pathway was not evaluated because surface water contamination from the site is being addressed under a separate action.

The nearby population threat was not evaluated because the area of observed contamination on residential properties is unavailable to the public and has an attractiveness/accessibility value of 0 (Ref. 1, Section 5.2).

HRS DOCUMENTATION RECORD

Date of Record: August 24, 2004

Site Name: Price Battery

EPA Region: 3

Street Address of Site*: 246 Grand Street

City, County, and State: Hamburg, Berks County, Pennsylvania, 19526

General Location in the State: Southeast

Topographic Maps: 7.5-Minute Series Topographic Maps of Auburn and Hamburg

Latitude: 40.5495065243889° N **Longitude:** 75.9802276583787° W

Geographic coordinates were measured from the intersection of Windsor and South 4th Streets (Refs. 31; 40).

Pathway Scores

Ground Water Pathway	Not Scored (NS)
Surface Water Pathway	NS
Soil Exposure Pathway	75.72
Air Pathway	NS
HRS SITE SCORE	37.86

*The street address, coordinates, and contaminant locations presented in this HRS documentation record identify the general area the site is located. They represent one or more locations EPA considers to be part of the site based on the screening information EPA used to evaluate the site for NPL listing. EPA lists national priorities among the known "releases or threatened releases" of hazardous substances; thus, the focus is on the release, not precisely delineated boundaries. A site is defined as where a hazardous substance has been "deposited, stored, placed, or otherwise come to be located." Generally, HRS scoring and the subsequent listing of a release merely represent the initial determination that a certain area may need to be addressed under CERCLA. Accordingly, EPA contemplates that the preliminary description of facility boundaries at the time of scoring will be refined as more information is developed as to where the contamination has come to be located.

WORKSHEET FOR COMPUTING HRS SITE SCORE

		S	S^2
1.	Ground Water Migration Pathway Score (S_{gw}) (from Table 3-1, line 13)	NS	NS
2a.	Surface Water Overland/Flood Migration Component (from Table 4-1, line 30)	NS	NS
2b.	Ground Water to Surface Water Migration Component (from Table 4-25, line 28)	NS	NS
2c.	Surface Water Migration Pathway Score (S_{sw}) Enter the larger of lines 2a and 2b as the pathway score.	NS	NS
3.	Soil Exposure Pathway Score (S_s) (from Table 5-1, line 22)	75.72	5,733.5184
4.	Air Migration Pathway Score (S_a) (from Table 6-1, line 12)	NS	NS
5.	Total of $S_{gw}^2 + S_{sw}^2 + S_s^2 + S_a^2$	75.72	5733.5184
6.	HRS Site Score: Divide the value on line 5 by four and take the square root.		37.86

NS = Not scored

TABLE 5-1
SOIL EXPOSURE PATHWAY SCORESHEET

Factor Categories and Factors		Maximum Value	Value Assigned
Resident Population Threat			
Likelihood of Exposure			
1.	Observed Contamination	550	550
Waste Characteristics			
2.	Toxicity	(a)	10,000
3.	Hazardous Waste Quantity	(a)	10
4.	Waste Characteristics	100	18
Targets			
5.	Resident Individual	50	45
6.	Resident Population		
	6a. Level I Concentrations	(b)	0
	6b. Level II Concentrations	(b)	586
	6c. Resident Population (Lines 6a + 6b)	(b)	586
7.	Workers	15	0
8.	Resources	5	0
9.	Terrestrial Sensitive Environments	(c)	0
10.	Targets (lines 5 + 6c + 7 + 8 + 9)	(b)	631
Resident Population Threat Score			
11.	Resident Population Threat Score (Lines 1 x 4 x 10)	(b)	6,246,900

[a] Maximum value applies to waste characteristics category.
[b] Maximum value is not applicable.
[c] Do not round to nearest integer.

TABLE 5-1 (continued)
SOIL EXPOSURE PATHWAY SCORESHEET

Factor Categories and Factors		Maximum Value	Value Assigned
Nearby Population Threat			
Likelihood of Exposure			
12.	Attractiveness/Accessibility	100	NS
13.	Area of Contamination	100	NS
14.	Likelihood of Exposure	500	NS
Waste Characteristics			
15.	Toxicity	(a)	NS
16.	Hazardous Waste Quantity	(a)	NS
17.	Waste Characteristics	100	NS
Targets			
18.	Nearby Individual	1	NS
19.	Population within 1 Mile	(b)	NS
20.	Targets (lines 18 + 19)	(b)	NS
Nearby Population Threat Score			
21.	Nearby Population Threat Score (lines 14 x 17 x 20)	(b)	NS
Soil Exposure Pathway Scores			
22.	Soil Exposure Score ([lines 11 + 21]/82,500, subject to a maximum of 100)	100	75.72

[a] Maximum value applies to waste characteristics category.
[b] Maximum value is not applicable.
[c] Do not round to nearest integer.

The nearby population threat was not evaluated because the attractiveness and accessibility value is 0. Therefore, the threat does not significantly change the soil exposure pathway score (Ref. 1, Table 5-6).

NS = Not Scored

REFERENCES

Reference Number	Description of the Reference
1.	U.S. Environmental Protection Agency (EPA). Hazard Ranking System (HRS), Final Rule, 55 Federal Register 51583, 40 Code of Federal Regulations Part 300. Appendix A, 55 FR 51533. U.S. Government Printing Office. Washington, D.C. December 14, 1990. 137 pages.
2.	EPA. Superfund Chemical Data Matrix (SCDM). January 28, 2004. 50 pages.
3.	Tetra Tech EM Inc. (Tetra Tech). Price Battery XRF Logbook. January 7 through May 17, 2003. 48 pages.
4.	Tetra Tech. Price Battery Sample Log. April 10 and 14, 2003. 13 pages.
5.	Tetra Tech. Price Battery Sample Log. April 29 and 30, 2003. 12 pages.
6.	Tetra Tech. Price Battery Sample Log. November 4 and 5, 2002. 25 pages.
7.	Tetra Tech. Price Battery Sample Log. December 2, 4, 10, 16 and 18, 2002. 45 pages.
8.	Tetra Tech. Price Battery Sample Log. June 13, 2003. 6 pages.
9.	Tetra Tech. Price Battery Sample Log. November 14, 15, 19, and 20, 2002 and December 19, 2002. 15 pages.
10.	Tetra Tech. Price Battery Sample Log. March 21 and 25, 2003. 36 pages.
11.	United States District Court for the Eastern District of Pennsylvania. August 9, 2001. Memorandum of the United States In Support of Its Motion for Summary Judgment on Liability. United States of America, Plaintiff, Versus Exide Corporation, Defendant, C.A. No. 00-CV-3057. 410 pages.
12.	Tetra Tech. Price Battery Sample Log. November 21 and 25, 2002. 9 pages.
13.	Tetra Tech. Price Battery XRF Logbook. November 8, 2002 through October 3, 2003. 8 pages.
14.	Tetra Tech. Letter Regarding Price Battery - Data Quality Report, Technical Direction Document (TDD) No. SE3-02-11-005, DTN 1800. From Marian Murphy, Senior Chemist. To Mr. Robert Guarni, On-Scene Coordinator (OSC), EPA. January 10, 2003. 25 pages.

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15. Tetra Tech. Letter Regarding Price Battery - Data Quality Report, TDD No: SE3-02-11-005, DTN 1768. From Marian Murphy, Senior Chemist. To Mr. Robert Guarni, OSC, EPA. December 10, 2002. 44 pages.

16. Tetra Tech. Letter Regarding Price Battery - Data Quality Report, TDD No. SE3-02-11-005, DTN 1799. From Marian Murphy, Senior Chemist. To Mr. Robert Guarni, OSC, EPA. January 9, 2003. 18 pages.

17. Tetra Tech. Letter Regarding Price Battery - Data Quality Report, TDD No. SE3-02-11-005, DTN 1830. From Marian Murphy, Senior Chemist. To Mr. Robert Guarni, OSC, EPA. February 6, 2003. 15 pages.

18. Tetra Tech. Letter Regarding Price Battery - Data Quality Report, TDD No. SE3-02-11-005, DTN 1916. From Marian Murphy, Senior Chemist. To Mr. Robert Guarni, OSC, EPA. April 15, 2003. 32 pages.

19. Tetra Tech. Letter Regarding Price Battery - Data Quality Report, TDD No. SE3-02-11-005, DTN 1950. From Marian Murphy, Senior Chemist. To Mr. Robert Guarni, OSC, EPA. May 8, 2003. 18 pages.

20. Tetra Tech. Letter Regarding Price Battery - Data Quality Report, TDD No. SE3-02-11-005, DTN 2030. From Marian Murphy, Senior Chemist. To Mr. Robert Guarni, OSC, EPA. July 7, 2003. 10 pages.

21. Tetra Tech. Letter Regarding Price Battery - Data Quality Report, TDD No. SE3-02-11-005, DTN 1970. From Marian Murphy, Senior Chemist. To Mr. Robert Guarni, OSC, EPA. May 23, 2003. 16 pages.

22. Tetra Tech. Letter Regarding Price Battery - Data Quality Report, TDD No. SE3-02-11-005, DTN 1985. From Marian Murphy, Senior Chemist. To Mr. Robert Guarni, OSC, EPA. May 30, 2003. 13 pages.

23. Tetra Tech. Letter Regarding Price Battery - Data Quality Report, TDD No. SE3-02-11-005, DTN 1941. From Marian Murphy, Senior Chemist. To Mr. Robert Guarni, OSC, EPA. May 2, 2003. 30 pages.

24. Tetra Tech. Final Trip Report for the Removal Assessment at the Price Battery Site, Hamburg, Berks County, Pennsylvania. Prepared under Contract No. 68-53-00-02. TDD No. SE3-02-07-019, DTN 1726. October 31, 2002. 437 pages.

25. U.S. Department of Health and Human Services. Agency for Toxic Substances and Disease Registry (ATSDR). Health Consultation. Price Battery Site, Hamburg, Berks County, Pennsylvania. October 10, 2002. 5 pages.

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26. EPA. Pollution Reports (POLREP) 1 through 48, Price Battery Removal. Various Dates. 183 pages. (The pages in Reference 26 are in order by the number of POLREP and are cited in the report by the reference number followed by the POLREP number and the page number of the POLREP.)

27. The Hamburg Area Inc. Berks-Mont Newspaper, Inc. "In Our Neck of the Woods." Accessed November 7, 2002. 3 pages. On-Line Address: http://www.berksmontnews.com/hitemsl.html

28. The Hamburg Area Item. Berks-Mont Newspaper, Inc. "In Our Neck of the Woods." October 23, 2002. 2 pages.

29. ATSDR. ATSDR Record of Activity Prepared by Peter Gold. June 13, 2002. 1 page.

30. Spectrum. Chemical Fact Sheet Lead. Accessed August 19, 2004. 11 pages. On-Line Address: http://www.speclab.com/elements/lead.htm

31. U.S. Geological Society. 7.5-Minute Series Topographic Map for Hamburg, Pennsylvania, Quadrangle 1956. Photo revised 1969, 1977, and 1994.

32. Tetra Tech. Price Battery Sample Log. April 10, 15, and 16, 2003. 8 pages.

33. Tetra Tech. Price Battery Sample Log. December 17 and 19, 2002 and January 10, 15, and 16, 2003. 15 pages.

34. Tetra Tech. Letter Regarding Price Battery - Data Quality Report, TDD No. SE3-02-11-005, DTN 1794. From Marian Murphy, Senior Chemist. To Mr. Robert Guarni, OSC, EPA. January 6, 2003. 73 pages.

35. Tetra Tech. Letter Regarding Price Battery - Data Quality Report, TDD No. SE3-02-11-005, DTN 1965. From Marian Murphy, Senior Chemist. To Mr. Robert Guarni, OSC, EPA. May 19, 2003. 14 pages.

36. Tetra Tech. Price Battery XRF Logbook. June 17, 2003. 1 page.

37. Tetra Tech. Price Battery XRF Logbook. November 18, 19, 20, 21, and 27 and December 2, 3, 4, and 5, 2002. 20 pages.

38. EPA. Memorandum Regarding Data Validation Report for the Price Battery Site (Case/DAS # 32518 SDG# MC0331). From Frederick Foreman, Region III Environmental Services Assistance Team (ESAT) Regional Project Officer (RPO). To Linda Baxter, Regional Project Manager, EPA. February 2, 2004. 53 pages.

39. EPA. Using Qualified Data to Document an Observed Release and Observed Contamination. Office of Solid Waste and Emergency Response (OSWER). Directive 9285.7-14FS. PB94-963311. EPA 540/F-94/028. November 1996. 18 pages.

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40. U.S. Army Corps of Engineers, Topographic Engineering Center. Corpscon, Version 5.11.03 Program Using Nadcon 2.1 Transformation for Determining Latitude and Longitude from Topographic Map. Technical Documentation and Operating Instructions. September 1997. 7 pages.

41. Tetra Tech. Electronic Mail Regarding Detection Limits. From Marian Murphy, Senior Chemist. To Alicia Shultz, Tetra Tech, Project Manager. October 29, 2003. 1 page.

42. Tetra Tech. Memorandum to File Regarding Discussions with Colin Chambers. From Alicia Shultz, Project Manager. March 11, 2004. 4 pages.

43. EPA. Federal On-Scene Coordinator's Report for Hamburg Lead Site, Berks County, Pennsylvania. August 25, 1994. 28 pages.

44. EPA. Memorandum Regarding Hamburg Fieldhouse Sampling Assessment Trip Report, Hamburg, Berks County, Pennsylvania. From Thomas Paciga, Technical Assistance Team (TAT) Region III. To Jack Owens, OSC, EPA Region III, Eastern Response Section. December 10, 1990. 5 pages.

45. EPA. Current Site Information, Brown's Battery Breaking. Last updated/modified on August 2002. On-Line Service Accessed on November 14, 2003. 3 pages. On-Line Address http://ww.epa.gov/reg3hwmd/super/PA/browns-battery/pad.htm

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47. Ecology and Environment, Inc. Screening Site Inspection of Hamburg Playground, Hamburg, Berks County, Pennsylvania. EPA ID No. PAD987332541, Dump Site No. PA-2895. December 1992. (Pages iii, v, vii, ix, 1-1, 1,-3, 2-1, 2-3, 2-5, 2-7, 3-1 through 3-14, 4-1, 5-1 through 5-3, 5-5, 5-7, 5-9 through 5-12, and 7-21 through 7-26.) 39 pages.

48. Ecology and Environment, Inc. Screening Site Inspection of the Hamburg Fieldhouse, Hamburg, Berks County, Pennsylvania. EPA ID No. PAD987329075, Dump Site No. PA-2886. November 1992. (Pages iii, v, vii, ix, 1-1, 1-3, 2-1, 2-3, 2-5, 2-7, 3-1 through 3-13 [there is no page 3-12 in the document], 4-1, 5-1 through 5-3, 5-5 through 5-7, 5-9, 5-11, and 7-19 through 7-22.) 36 pages.

49. EPA. X-MET™ 880 Field Portable X-Ray Fluorescence Operating Procedures. Standard Operating Procedure (SOP) No. 1707. December 22, 1994. 32 pages.

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50. United States Department of Agriculture, Natural Resources Conservation Service and the National Cooperative Soil Survey in Cooperation with the Berks County Conservation District. *Soil Survey of Berks County, Pennsylvania*. July 2003. Including cover page, page 58, and Sheet Number 7 (Hamburg Quadrangle). 3 pages.

51. EPA. The Revised Hazard Ranking System: Evaluating Sites After Waste Removals. Quick Reference Fact Sheet. Publication 9345.1-03FS. October 1991. 10 pages.

52. Author Not Listed. Price Battery Fire. June 29, 1994. 1 page.

53. Author Not Listed. General Battery Corporation, Hamburg Plant, formerly Price Battery. No date. 1 page.

54. U.S. Census Bureau. Fact Sheet, Berks County, Pennsylvania. Pennsylvania QuickFacts. On-Line Service Accessed on August 19, 2004. 2 pages. On-Line Address: http://quickfacts.census.gov/gfd/states/42/42011.hmtl

55. EPA. Revisions to Office of Solid Waste and Emergency Response (OSWER) National Priorities List (NPL) Policy "The Revised Hazard Ranking System: Evaluating Sites After Waste Removals." Publication No. 9345.1-03FS, October 1991. Memorandum Regarding OSWER Directive #9345.1-25. From Stephen D. Luftig, Director, Office of Emergency and Remedial Response. To EPA Regional Offices. April 4, 1997. 4 pages.

56. Tetra Tech. Electronic Mail Message Regarding Depth of Removal. From Colin Chambers, Environmental Scientist. To Alicia Shultz, Project Manager, Tetra Tech. March 25, 2004. 1 page.

57. Tetra Tech. Memorandum to File Regarding Removal Actions. From Alicia Shultz, Project Manager. March 31, 2004. 2 Pages.

58. EPA. Electronic Mail Message Regarding General Battery Corporation Acquisition. From Ben Joseph, EPA, Civil Investigator. To Alicia Shultz, Project Manager, Tetra Tech. April 20, 2004. 1 page.

59. Tetra Tech. Trip Report for the Price Battery Site, Hamburg, Berks County, Pennsylvania. Prepared under EPA Contract No. 68-53-00-02. TDD No. SE3-02-11-005. DTN 3084. March 12, 2004. 34 pages.

ACRONYMS AND ABBREVIATIONS

µg/g	Micrograms per gram
µg/L	Micrograms per liter
ATSDR	Agency for Toxic Substances and Disease Registry
bgs	Below ground surface
CLP	Contract Laboratory Program
EPA	U.S. Environmental Protection Agency
ERG	Emergency removal guidelines
ERT	Emergency Response Team
ESAT	Environmental Services Assistance Team
ft^2	Square feet
HRS	Hazard Ranking System
HWQ	Hazardous waste quantity
mg/kg	Milligrams per kilogram
mg/m^3	Milligrams per cubic meter
NIOSH	National Institute for Occupational Safety and Health
NPL	National Priorities List
NS	Not scored
OSWER	Office of Solid Waste and Emergency Response
POLREP	Pollution report
RA	Removal assessment
RBC	Risk-based concentration
RPO	Regional Project Officer
QA/QC	Quality assurance/quality control
QC	Quality control
SCDM	Superfund Chemical Data Matrix
SI	Site inspection
SOP	Standard operating procedure
START	Superfund Technical Assistance and Response Team
TAT	Technical Assistance Team
TP	Test pit
Tetra Tech	Tetra Tech EM Inc.
USGS	United States Geologic Survey
XRF	X-ray fluorescence
yd^3	Cubic yards

SUMMARY OF FIGURES IN APPENDIX A

SUMMARY OF TABLES IN APPENDIX B

SITE BACKGROUND

The Price Battery facility is located in downtown South Hamburg, Berks County, Pennsylvania and is surrounded by a densely populated residential area with lead-contaminated soil (Ref. 24, pp. 2, 7). Approximately 222 residential properties have been documented to have lead-contaminated soil at levels more than three times the background concentration, as documented in Section 5.0 of this Hazard Ranking System (HRS) documentation record. Most of the residences are row homes with small front, back, or side yards totaling approximately 2,000 square feet in area (Ref. 24, p. 7, Appendix B, p. 8). The boundaries of the area of observed soil contamination are shown in Figures 1 and 3 of Appendix A. The lead-contaminated soil is associated with former operations at the Price Battery facility. The Price Battery facility operated from the 1940s to approximately February 11, 1966 as a lead battery recycling and manufacturing facility (Ref. 11, pp. 2, 3). As part of the battery recycling process, a secondary lead smelter operated on the facility (Refs. 25, p. 1; 11, Exhibit 1, p. 1, Exhibit 2, p. 2, and Exhibit 3, p. 1). Investigations conducted in the area of the Price Battery facility have attributed the lead contamination documented in soils located on residential properties primarily to lead emissions from the Price Battery facility (Refs. 25, p. 1; 26, Pollution Report [POLREP] 1, p. 1; 29). The lead-contaminated soil may also be partially attributable to lead battery waste used as fill material throughout the borough of Hamburg (Ref. 11, Exhibit 2, pp. 2, 3, Exhibit 3, pp. 3, 4, Exhibit 4, p. 2, Exhibit 7, p. 3, Exhibit 8, p. 2, and Exhibit 11, p. 2).

The Price Battery facility is located at 246 Grand Street in Hamburg, Pennsylvania, as shown in Figure 1 in Appendix A (Ref. 24, p. 2). The facility recycled lead-acid batteries and also produced approximately 15,000 batteries per year (Refs. 24, p. 4; 29). New batteries from the Price Battery facility were delivered to customers and junk batteries were brought back to the Price Battery facility in the same truck used to deliver the batteries. Employees at the Price Battery facility split open the used batteries at a smelter on the facility and reused the lead plates from the junk batteries in the smelter (Ref. 11, Exhibit 1, p. 1, Exhibit 2, p. 2, and Exhibit 3, p. 1).

Price Battery reused only the lead plates from the batteries. The rest of the battery was waste and was stored in a dump truck. The waste consisted of asphalt, hard rubber, and plastic casing that may have been contaminated with lead (Ref. 11, Exhibit 1, p. 2, Exhibit 2, p. 2, Exhibit 3, pp. 1,2, Exhibit 4, p. 1, and Exhibit 5, pp. 1, 2). The bottom of the junk battery casings normally contained a lead residue that had settled to the bottom of the battery casing during the battery's lifetime. This residue resulted from the lead

oxide and acid that had been placed in the battery as it was being manufactured (Ref. 11, Exhibit 6, p. 3). Unwashed battery casings could also contain lead (Ref. 11, Exhibit 9, p. 2). When the dump truck was full of waste battery casing, Price Battery employees drove the truck to various locations in and around Hamburg to dump the waste casings (Ref. 11, Exhibit 2, pp. 2, 3, Exhibit 3, p. 2, Exhibit 7, p. 3, and Exhibit 8, p. 2). Battery casings were also made available for people to pick up from the facility for use as fill (Ref. 11, Exhibit 3, p. 3, Exhibit 4, p. 2, Exhibit 7, p. 3, and Exhibit 11, p. 2).

From the 1940s until approximately 1961, Price Battery contracted with Blue Mountain Coal Company (Blue Mountain) to crush and compact battery casings after they were dumped in and around Hamburg and to remove slag from the Price Battery facility (Ref. 11, Exhibit 7, pp. 1, 2, and Exhibit 8, p. 1). The slag was left over from the lead smelting operations at the facility. Blue Mountain dumped the slag at the locations in Hamburg where Price Battery had dumped the battery casings (Ref. 11, Exhibit 8, p. 2).

Beginning in the early 1960s, Price Battery entered into an agreement with Brown's Battery to send junk batteries that were returned from Price Battery's customers to the Brown's Battery breaking facility (Ref. 11, Exhibit 2, p. 3, and Exhibit 6, pp. 2, 3). Brown's broke open the junk batteries and removed the lead plates for return to the smelter at the Price Battery facility, where the lead plates were reused (Ref. 11, p. 6).

General Battery purchased Price Battery on February 11, 1966 and took over operation of the Price Battery facility (Ref. 11, Exhibit 15, p. 6). General Battery continued Price Battery's battery-making operations at the Price Battery facility (Ref. 11, Exhibit 1, pp. 2, 3, Exhibit 3, p. 3, Exhibit 4, p. 2, and Exhibit 11, p. 1). General Battery continued making the same products as Price Battery made, using the same equipment (Ref. 11, Exhibit 1, p. 3, Exhibit 4, p. 2, and Exhibit 16, pp. 1, 2). In 1971, General Battery Corporation closed its smelter operation (Ref. 27, p. 2).

Noxious odors and acid fumes were reportedly emitted from the Price Battery facility. In 1941, a citizens' group contacted the borough of Hamburg with concerns about the facility's operations. The group's legal counsel indicated that smoke stacks on the facility emitted lead-contaminated ash produced during the melting of old batteries (Refs. 27, pp. 1, 2; 28).

In 2002, the conditions at the Price Battery facility were recorded in a removal assessment (RA) trip report prepared by the U.S. Environmental Protection Agency (EPA) Region 3's Superfund Technical Assistance and Response Team (START) for the Price Battery facility. According to this RA, the facility is located on 8 acres and is surrounded by a 6-foot-high chain-link fence. The facility consists of three large manufacturing buildings(east building, west building, and oxide department) and two lots (north and south) on one parcel of land and a large warehouse and gravel parking lot on a second parcel to the west. In 2002, the buildings contained most of the processing equipment used for lead-acid battery manufacturing and recycling (Ref. 24, p. 4).

The east building contains a battery storage room, warehouse room and loading dock, north and central dry formation rooms, plate drying room, plate wash room, plate storage room, lead oxide pasting area, enveloping area, battery-assembly area, grid casting room, quality control laboratory, boiler room, plaque storage room, maintenance area, and dry and wet hydroset rooms. During the RA, interior walls were observed to be degraded by acid corrosion (Ref. 24, p. 4). Eighteen 55-gallon drums containing various materials were located in the southern end of the assembly and enveloping rooms. Sumps or trenches were located in the warehouse, dry formation room, and pasting area of the east building. Kaercher Creek was observed to flow under the east building, surface towards the fence bordering the south end of the facility, and continue under Grand Street (Ref. 24, p. 6).

The west building consists of a lunchroom, warehouse room and loading dock, wet formation area, finishing room, auto assembly area, and enveloping room. The west building is approximately one-half the size of the east building. During the 2002 RA, drums were observed in the enveloping area and wet formation area. Trenches were located in the wet formation area and finishing room. A large storage basin was located in the wet formation area (Ref. 24, p. 6).

The oxide department building is located in the north lot. This building contains a large furnace with smokestacks extending to just above the sheet metal roof, air cooling towers, and a bulk oxide-loading hopper. The oxide department building also contains an air shower that workers used to decontaminate themselves when leaving the building (Ref. 24, p. 6).

The north lot contains three primary air particulate collection systems, an acid tower with seven empty sulfuric acid storage tanks, and a 100,000-gallon water storage tank. The 100,000-gallon water storage tank and seven empty sulfuric acid storage tanks are located in the north lot in the vicinity of the oxide department building. Two sumps are located between the acid tower and oxide department building. During the RA, all tanks were found to be empty in the north lot, and the particulate collection systems were inactive and contained little to no dust or particulate in their primary collection containers (55-gallon drums) (Ref. 24, p. 6).

During the 2002 RA, the south lot contained 10 empty sulfuric acid tanks, which were located along the south wall of the grid casting room of the east building. Part of the south lot is covered with a mixture of 2-inch stones and battery casing chips (Ref. 24, pp. 6, 7). During the 2002 assessment, the large warehouse on the Price Battery facility contained batteries stacked on pallets prepared for shipment as product (Ref. 24, p. 7).

Initial sampling activities at Price Battery were conducted from July through October 2002 by EPA Region 3's START contractor (Ref. 24, pp. 10, 12, 15). Samples were collected from the Price Battery facility and residential properties near the Price Battery facility (Ref. 24, p. 12). Samples collected from the Price Battery facility revealed lead up to 11,700,000 micrograms per liter (µg/L) in liquid wastes (Ref. 24, Appendix E, Table B-3, p. 2) and up to 48,400 micrograms per gram µg/g in solid wastes (Ref. 24, Appendix E, Table B-3, p. 4). The liquid waste sample (PBP-WS-07) was collected from a sump in the pasting area located in the east building and the solid waste sample (PBP-WS-19) was collected from a drum located in the west building (Ref. 24, p. 20). Thirty-eight surface soil samples collected from the Price Battery facility contained lead at concentrations ranging from 1,460 to 157,901 milligrams per kilogram (mg/kg) (Ref. 24, p. 52). Surface soils collected outside the facility fence contained lead at concentrations of greater than 1,000 mg/kg. Children have been observed playing in the areas where these samples were collected (Ref. 24, p. 55).

During the initial sampling activities, it was determined that the contents of sumps and trenches located on the facility were highly acidic (pH of 0 to 2). Drums sampled at the facility contained elevated levels of lead and arsenic when compared to EPA's risk-based concentrations (RBC) and emergency removal guidelines (ERG). Some of the drums were noted to be in very bad condition (Ref. 24, pp. 20, 51, 55).

SITE BACKGROUND (continued)

Numerous waste types were uncovered at the facility during the installation of test pits (TP), including battery casings, sand, ash, and drums (Ref. 24, Appendix A, pp. 14, 15, 16 and Appendix B, p. 7). Surface soil samples collected from the residential properties (Area 1) contained 560 to 116,941 mg/kg of lead (Ref. 24, pp. 52 and 53).

The Agency for Toxic Substances and Disease Registry (ATSDR) completed a health consultation for EPA to evaluate lead contamination in residential yards adjacent to the Price Battery facility (Ref. 25, p. 1). ATSDR concluded that lead contamination is present in residential yards near the Price Battery facility at levels that pose a public health hazard. ATSDR noted that the extent of lead contamination in the residential community around the Price Battery facility was not fully characterized. ATSDR recommended that additional sampling be conducted in the community to identify the areas of lead contamination surrounding the Price Battery facility (Ref. 25, p. 2).

From November 2002 to May 2003, EPA Region 3's START collected surface soil samples from residential properties surrounding the Price Battery facility (Refs. 3; 13). These soil samples delineated an area of observed lead-contaminated soil surrounding the Price Battery facility. EPA has completed a removal action at the Price Battery facility and some of the nearby residential properties. Removal actions to address additional residential properties are ongoing (Refs. 26, POLREPs 18 through 48; 51, p. 1). The removal actions completed on residential properties included the removing the top 1 foot of soil, covering the area with geofabric, filling the area with clean fill, grading, and seeding (Refs. 42, p. 3; 56). No site inspection (SI) has been conducted to date at the Price Battery facility (Ref. 51, pp. 1, 8).

5.0 SOIL EXPOSURE

5.0.1 General Considerations

Letter by which this area is to be identified: A

Name of area: Area of Observed Surface Soil Contamination

Observed contamination has been documented at 222 residential properties adjacent to the Price Battery facility (see the following sections for documentation).

In July 2002, EPA Region 3's START collected soil samples from a depth of 0 to 6 inches below ground surface (bgs) from residential properties (Ref. 42, p. 1). Both background and release samples were analyzed for lead using a Niton model SL 7000 series x-ray fluorescence (XRF) unit, calibrated to analyze bulk soil samples using a $cadmium_{109}$ radioactive source (Ref. 24, p. 45). XRF analysis was performed in accordance with EPA Emergency Removal Team Standard Operating Procedure (SOP) No. 1707, "X-MET™ 880 Field Portable X-Ray Fluorescence Operation Procedures" for lead analysis of soil samples (Ref. 49). Reference 24, pages 45 and 46, documents the procedures used to analyze the soil samples with the XRF. Quality assurance and quality control (QA/QC) review was conducted for all XRF data. Ten percent of the collected samples were sent to a fixed laboratory for confirmation analysis (Ref. 14, p. 1). The confirmatory samples were analyzed by a fixed laboratory using EPA "Test Methods for Evaluating Solid Waste," September 1986, SW-846, Method 6010B (Refs. 34, p. 1; 35, p. 1). One set of samples were analyzed through EPA's Contract Laboratory Program (CLP) for total lead using CLP SOW ILM05.2 (Ref. 38, p. 2). The analytical results from those soil samples sent to a fixed laboratory are used to document the presence of lead at concentrations exceeding three times the background concentration within 2 feet of the ground surface, or the area of observed contamination. The XRF background and release analyses are presented to provide additional evidence supporting the background and release sample concentrations and to provide evidence that the area between the observed release sampling locations is contaminated.

The area of observed soil contamination on the residential properties is documented in accordance with Section 5.0.1 of the HRS Final Rule (Ref. 1, Section 5.0.1). The area of observed soil contamination is delineated by the locations of soil samples documenting concentrations of hazardous substances three times above background concentration and the area lying between those locations, minus the areas covered by impenetrable surfaces (such as houses, roads, and sidewalks) (Ref. 1, Section 5.0.1; Table 5 in Appendix B). The area of observed soil contamination is illustrated on Figures 3 through 6 in Appendix A. The areas covered by impenetrable surfaces within the area of observed contamination cannot be accurately documented; therefore, to calculate the most conservative estimate, the area of observed soil contamination is assigned a value of greater than 0.

As illustrated in Figure 3 in Appendix A, the boundaries of the area of observed contamination are defined by connecting the observed release sampling locations shown in red. Sampling locations documenting observed release concentrations and collected from properties where removal actions have been completed are not used to define the boundaries of the area of observed contamination. The properties on which removal actions have occurred are shaded in green on Figures 3 through 6 in Appendix A. The sampling locations on properties where removal actions have occurred are not used to define the area of observed contamination because it is not known whether soil contamination remains on the property. No confirmation samples were collected after the lead-contaminated soil was removed from the property. The removal actions completed on the residential properties included the removal of the top 1 foot of soil (Ref. 56).

Location and description of area (with reference to a map of the site):

As shown in Figure 1, in Appendix A, Area A, or the area of observed soil contamination, is located in South Hamburg, Berks County, Pennsylvania. The approximate area of observed soil contamination documented in Section 5.0 is bounded by Pine Street to the north, Maple Street to the south, Peach Alley to the east, and South Fifth Street to the west. The residential properties are located west of the Price Battery facility.

Observed Contamination Evidence

From November 2002 to May 2003, EPA Region 3's START collected surface soil samples (0 to 6 inches bgs) from residential properties surrounding the Price Battery facility (Refs. 3; 13). These soil samples were used to delineate an area of observed soil contamination and to document the presence of Level II concentrations of lead (Table 5). EPA has completed a removal action at the Price Battery facility and at some of the nearby residential properties. Removal actions to address additional residential properties are ongoing (Refs. 26, POLREPs 18 through 48; 51, p. 1). The removal actions completed at residential properties included the removal of the top 1 foot of soil. No confirmatory samples were collected after the removal. The properties on which removal actions occurred are not included within the area of observed contamination because it cannot be documented that soil contamination remains on the property after the removal action (Ref. 56). Properties on which removal actions have occurred are shaded in green on Figures 3 through 6 in Appendix A. Reference 26 documents the properties on which removal actions have occurred.

As documented in Tables 2 and 5 in Appendix B, the samples sent to a fixed analytical laboratory for confirmatory analysis were used to delineate the area of observed soil contamination. The background sampling locations and the release sampling locations corresponding to these samples are shown in blue and red, respectively, on Figures 3 through 6. The sampling locations shown in red on Figures 3 through 6 in Appendix A are used to define the boundaries of the area of observed contamination, as currently documented using available information. Removal actions (the excavation of the top 1 foot of soil and filling in the area) have been completed on properties shaded in green on Figures 3 through 6 in Appendix A (Refs. 26; 56). Any sampling data associated with those properties documenting observed contamination prior to the removal action are not used to define the area of observed contamination because there is no documentation that soil contamination remains under the 1 foot of fill.

Table 3, XRF Background Soil Lead Concentrations, XRF Analysis, and Table 6, Release Soil Lead Concentrations, XRF Analysis, in Appendix B present the results of the XRF analysis. The XRF background and release analyses are presented to provide additional evidence supporting the background and release sample concentrations and to provide evidence that the area between the observed release sampling locations is contaminated.

The sections below document the background and release sampling locations, collection dates, and concentrations of lead reported in these soil samples.

Background Samples for Area: A

The sections below describe background sampling locations and lead concentrations reported in the background samples.

Background Sampling Locations for Area: A

The background and release samples are comparable because they were all collected from properties of the same land use, during the same timeframe, using the same collection procedures, and were analyzed using the same methods (Tables 1 and 4 in Appendix B and Figures 3 and 6 in Appendix A). The background and release sampling locations were also collected from the same soil series, Urban Land-Berks complex (UkB), as shown on the Hamburg Soil Survey Map (Ref. 50, p. 58 and Sheet Number 7). A comparison of the lead concentrations in the background and release samples indicates that the lead concentrations found in the background samples are significantly lower than the concentrations found in the release samples. The samples collected closer to the Price Battery facility have higher concentrations than samples collected farther from the facility. Table 1 in Appendix B summarizes all background soil sampling locations (XRF and fixed laboratory).

Background Sample Concentrations for Area: A

Table 2 in Appendix B summarizes the concentrations of lead detected in the background samples and analyzed by a fixed laboratory. The highest value reported, 115 mg/kg for sample 366-SS-02, is used as the background concentration.

Table 3 in Appendix B provides the concentrations of lead detected in the background samples that were analyzed using XRF technology. The XRF analytical data is presented to provide further evidence that the background concentration of 115 mg/kg is representative of background levels and that the area from which the background samples were collected is representative of background rather than release

concentrations. The data illustrates that lead concentrations in residential soil surrounding the Price Battery facility decrease to the southeast in the area where the background samples were collected (see Figures 4 through 6 in Appendix A and Tables 1 through 6 in Appendix B).

Release Samples for Area: A

The sections below describe release sampling locations and concentrations detected in the release samples.

Release Sampling Locations for Area: A

The locations of the release samples are within the area identified as most impacted by the Price Battery facility (Ref. 24, pp. 2, 3, 7). A comparison of the lead concentrations in the background and release samples indicates that lead concentrations are higher in residential properties located closest to the Price Battery facility. Additionally, the release sampling locations were collected in the direction of the prevailing wind or wind rose, east and southeast of the Price Battery facility (Ref. 24, p. 7). Background and release samples were collected from the same soil series, during the same relative timeframe, and using the same sample collection procedures and were analyzed using the same methods (Ref. 50, p. 58 and Sheet 7; Tables 1 through 6 in Appendix B). The locations of the release samples are summarized in Table 4 in Appendix B. Only data reported by the fixed laboratory were used to establish the area of observed contamination. The XRF data are presented to provide additional evidence for supporting the area of observed contamination (see Figures 3 through 6).

Release Sample Concentrations for Area: A

Table 5 of Appendix B summarizes the concentrations of lead detected in the release samples that were analyzed by the fixed laboratory. Table 6 of Appendix B provides the concentrations of lead detected in the release samples and analyzed using XRF technology. The XRF analytical data are presented to provide further evidence supporting the area of observed contamination. The data are also presented to illustrate that lead concentrations in residential soil increase as the locations move toward the Price Battery facility.

Attribution

The documented area of observed contamination on the 222 residential properties is largely attributable to operations of the nearby Price Battery facility. Price Battery facility operated a smelter that released lead to air (Refs. 26, POLREP 1, p. 1; 27, pp. 1, 2; 28; 30, pp. 3, 4, 5, 6; 53; 11, Exhibit 1, p. 1, Exhibit 2, p. 2, and Exhibit 3, p. 1). The presence of lead-contaminated soil near the Price Battery facility indicates that lead emitted into the air was deposited on nearby soil. Additionally, Price Battery used lead contaminated battery waste and slag as fill material throughout the borough of Hamburg (Ref. 11, Exhibit 2, pp. 2, 3, Exhibit 3, pp. 3, 4, Exhibit 4, p. 2 Exhibit 7, p. 3, Exhibit 8, p. 2, Exhibit 11, p. 2). Battery casings were also made available to people to pick up from the facility for use as fill (Ref. 11, Exhibit 3, p. 3; Exhibit 4, p. 2; Exhibit 7, p. 3, Exhibit 11, p. 2).

Soil sample analytical results revealed concentrations of lead in soil on and near the Price Battery facility at levels three times above background concentrations, as documented in this HRS documentation record (Refs. 24, pp. 49, 54, 55, 56; 25; 26; 29; Tables 1 through 6 in Appendix B). A particulate dispersion model completed by EPA's Emergency Response Team (ERT) Air Modeling Division indicated that Area A, the area of observed soil contamination, defined as Area 1 in Reference 24, is located within the 15 to 20 percent depositional zone for the Price Battery plant smokestack. The depositional zone is based on a 5-year wind rose (the direction, frequency, and strength of the wind) (Ref. 24, p. 7).

In 1944, a fire was discovered in the formation room located in the east building at the Price Battery facility. This fire is another potential source of emissions of lead to the air (Ref. 52).

Noxious odors and acid fumes were reportedly emitted from the Price Battery plant. In 1941, a citizens' group contacted the borough of Hamburg with concerns about the facility's operations. The group's legal counsel indicated that the plant smokestacks emitted lead-contaminated ash produced from the process of melting old batteries (Refs. 27, pp. 1, 2; 28).

From July through October 2002, EPA Region 3's START conducted sampling at Price Battery (Ref. 24, pp. 10, 15). Samples were collected from the Price Battery facility and from residential properties located near the Price Battery facility (Ref. 24, p. 12). Waste samples were collected from sumps in buildings and

from drums stored on the Price Battery facility. Samples revealed lead at levels up to 11,700,000 µg/L in liquid wastes (Ref. 24, Appendix E, Table B-3, p. 2) and up to 48,400 µg/g in solid wastes (Ref. 24, Appendix E, Table B-3, p. 4). The liquid waste sample (PBP-WS-07) was collected from a sump in the pasting area, located in the east building. The solid waste sample (PBP-WS-19) was collected from a drum located in the west building (Ref. 24, p. 20). Thirty-eight surface soil samples collected at the Price Battery facility contained lead at concentrations ranging from 1,460 to 157,901 mg/kg (Ref. 24, p. 52). Surface soil samples collected outside the facility fence line contained lead at concentrations greater than 1,000 mg/kg. Children have been observed playing in the areas where these samples were collected (Ref. 24, p. 55). The soil samples collected outside the fence line include PBP-SS-27 through PBP-SS-32 and PBP-SS-36 (Ref. 24, Figure 9, p. 31). The lead concentrations in these samples ranged from 30,182 to 84,582 parts per million (ppm) (Ref. 24, Appendix G, Table D, p. 1).

In July 2002, during the initial sampling activities, it was determined that the contents of sumps and trenches located on the facility were highly acidic (pH of 0 to 2). Drums sampled at the facility contained elevated lead and arsenic levels when compared to EPA's RBCs and ERGs (Ref. 24, pp. 12, 20, 49, 51, 55). Solid waste samples collected from the drums contained concentrations of lead ranging from 8,030 to 37,000 µg/g and arsenic ranging from 31.6 to 67.6 µg/g (Ref. 24, p. 23, Appendix E, Table B-3, pp. 2, 3). Aqueous samples collected from the drums contained concentrations of lead ranging from 527,000 and 3,000,000 µg/L and arsenic up to 2,110 µg/L (Ref. 24, p. 55 and Table B-3, pp. 3 and 4). Some of the drums were observed to be in very bad condition (Ref. 24, p. 55). Numerous waste types were uncovered on the facility during the installation of TPs. The wastes included battery casings, sand, ash, and drums (Ref. 24, Appendix A, pp. 14, 15, 16 and Appendix B, p. 7).

An air sample collected from a personal air monitor on the Price Battery facility during investigative activities revealed lead at 0.061 milligrams per cubic meter (mg/m^3). That concentration exceeds the National Institute for Occupational Safety and Health (NIOSH) time-weighted average for worker exposure of 0.05 mg/m^3 (Ref. 24, p. 50). This indicates that activities involving the lead-contaminated wastes at the Price Battery facility resulted in the emission of lead into the air.

Numerous additional properties with lead-contaminated soil have been investigated in the vicinity of the Price Battery facility. These areas of lead-contaminated soil are other potential sources of lead

contamination found within the area of observed soil contamination. Lead battery casings were disposed or used as fill at these properties (Refs. 43, pp. *ii*, 1; 46, pp. 2, 3; 47, p. 4-1; 48, p. 4-1). The battery casings disposed in these properties are suspected to have been generated from the Brown's Battery Breaking National Priorities List (NPL) site, located in Shoemakersville, Berks County, Pennsylvania (Ref. 44, p. 1). Five of these properties (A, B, C, D, and E are shown on Figure B, p. A24 of Reference 43) have been investigated by EPA and comprise the Hamburg Lead site. The properties that comprise the Hamburg Lead site surround the boundaries of the Price Battery facility and the area of observed soil contamination (Area A). The Price Battery facility is located at the intersection of South Second and Walnut Streets. Area A is located between Grand and Washington Streets (see Figure 3 in Appendix A; Ref. 43, Figure B, p. A24). The Price Battery facility and Area A are located approximately 2,000 feet (measured from Hamburg Lead Site E) to 2 miles (measured from Hamburg Lead Site D) from the properties that comprise the Hamburg Lead site (Refs. 24, Figure 1, p. 3; 43, Figure B, p. A24; 47, Figure 2-1, p. 2-5; 48, Figure 2-1, p. 2-5). Although these properties may have contributed to the lead contamination within the area of observed soil contamination, the Price Battery facility is suspected to be the major contributor of lead contamination. The pattern of lead concentrations detected in the soil samples collected within the area of observed contamination indicates that the lead concentrations are highest near and east and southeast of the Price Battery facility, which is the direction of the prevailing wind and consistent with wind rose modeling based on an air emissions source (Tables 2 and 5 in Appendix B and Figures 4 through 6 in Appendix A). Additionally, the area of observed contamination is located in the direction of the prevailing wind or wind rose, downwind of the Price Battery facility (Ref. 24, p. 7).

Hazardous Substances:

Lead

5.1 RESIDENT POPULATION THREAT

The observed release sampling locations are located on residential property, within the area of observed contamination, and within 200 feet of each of the 222 occupied residences. Although the locations of the occupied residence are not shown on Figures 4 through 6 in Appendix A, the distance from the observed release samples to the residence is less than 200 feet because the residential properties on which the soil samples were collected are less than 200 feet in width and length (see Figures 4 through 6 in Appendix A; Ref. 42, p. 2). Table 4 in Appendix B documents the sampling locations that meet the criteria for observed contamination (Ref. 1, Section 5.0.1).

5.1.1 Likelihood of Exposure

As documented above, the soil samples collected from residential properties meet the criteria for observed contamination (Ref. 1, Section 5.0.1). The contamination is on the property and within 200 feet of residences; therefore, the likelihood of exposure factor for the resident population threat is assigned a value of 550 (Ref. 1, Section 5.1).

Resident Population Threat Likelihood of Exposure Category Value: 550

5.1.2 Waste Characteristics

5.1.2.1 Toxicity

The toxicity value of lead is 10,000 (Ref. 2, p. B-13). The toxicity factor value of 10,000 is assigned in accordance with Reference 1, Section 5.2.2.1.

Highest Toxicity Factor Value: 10,000

5.1.2.2 Hazardous Waste Quantity

The hazard waste quantity (HWQ) value for the area of observed contamination (Area A) on the residential properties is 10 (Ref. 1, Section 2.4.2.2). The area of observed contamination is difficult to calculate because the area of impervious surfaces (houses, driveways, sidewalks, and roads) within the area of observed contamination cannot be accurately calculated and documented. Therefore, the area of soil contamination is assigned a value of greater than 0. As described in Sections 5.1.3.2.2 and 5.1.2.2, a HWQ value of 10 is assigned because the area could not be adequately evaluated. As documented in Section 5.1.3.2.2, Level II concentrations are present on residential properties.

HWQ Factor Value: 10

5.1.2.3 Calculation of Waste Characteristics Factor Category Value

The waste characteristics factor value for the soil exposure pathway is calculated below, as specified in the HRS Final Rule (Ref. 1, Section 5.1.2.3)

Toxicity: 10,000
HWQ Factor Value: 10
Toxicity (10,000) x HWQ Factor Value (100): 1×10^6

Waste Characteristics Factor Category Value: 18 (Ref. 1, Table 2-7)

5.1.3 Targets

The targets associated with the soil exposure pathway include resident individual, workers, resources, and terrestrial sensitive environments (Ref. 1, Section 5.1.3).

5.1.3.1 Resident Individual

Surface soil samples collected from residential properties surrounding the Price Battery facility were collected within the resident's property boundaries and within 200 feet of each residence; therefore, a value of 45 was assigned for the resident individual factor value (Refs. 1, Section 5.1.3.1; 42, p. 2).

Resident Individual Value: 45

5.1.3.2 Resident Population

5.1.3.2.1 Level I Concentrations

No HRS benchmarks are available for lead; therefore, only Level II concentrations were evaluated (Ref. 1, Table 5-3 and Section 5.1.3.2; Ref. 2, p. BII-20).

Sum of Level I Resident Population x 10 (Ref. 1, Section 5.1.3.2.1): None

Level I Resident Population Factor Value: 0

5.1.3.2.2 Level II Concentrations

There are 222 residential properties subject to Level II concentrations. The number of residential properties subject to Level II concentrations was obtained by counting the number of residential properties within the area of observed contamination shown on Figure 3 in Appendix A. Although it cannot be documented that all contaminated soils have been removed, to calculate the most conservative value, residential properties where contaminated soil was removed were not included in the property count. The average number of persons per household in Berks County, Pennsylvania is 2.64 (373,638 total population of Berks County/141,570 number of homes in Berks County) (Ref. 54). Therefore, the number of residents exposed to Level II concentrations equals the number of properties subject to Level II concentrations (222) multiplied by the average number of persons per household (2.64), which is equal to 586 residents.

Level II Resident Population Factor Value: 586

5.1.3.3 Workers

The number of workers on properties located within 200 feet of identified areas of contamination has not been quantified.

Worker Factor Value: 0

5.1.3.4 Resources

No resources have been identified in the area of observed contamination.

Resource Factor Value: 0

5.1.3.5 Terrestrial Sensitive Environments

No terrestrial sensitive environments have been identified in the area of observed contamination.

Terrestrial Sensitive Environment Factor Value: 0

5.2 NEARBY POPULATION THREAT

5.2.1 Likelihood of Exposure

The areas of observed contamination are located on residential properties. These properties are considered unavailable to the public and are not considered for scoring in the nearby population threat. The assigned attractiveness/accessibility factor value is 0 (Ref. 1, Table 5-6). The nearby population threat is not evaluated because the threat does not contribute to the site score since the attractiveness/accessibility factor value is 0 (Ref. 1, Section 5.2).

A copy of *Appendix A* is available at the EPA Headquarters Superfund Docket:

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APPENDIX B
TABLES

TABLE 1
BACKGROUND SOIL SAMPLING LOCATIONS
(Page 1 of 6)

Station ID	Sample ID	Location	Sampling Date	Reference
198	198-SS-03	Back yard in grass	12/04/02	7, pp. 36, 39
325	325-SS-01	Front yard, right side of house	01/10/03	33, pp. 5, 13
325	325-SS-02	Front yard, left side of house	01/10/03	33, pp. 5, 13
325	325-SS-03	Side yard, left side of house	01/10/03	33, pp. 5, 13
325	325-SS-04	Back yard, near woodpile and clothesline	01/10/03	33, pp. 5, 13
325	325-SS-05	Back yard, in front of picnic table	01/10/03	33, pp. 5, 13
326	326-SS-01	Left side of driveway near basketball net	03/25/03	4, p. 12; 10, pp. 1, 11
326	326-SS-02	Right corner of front yard	03/25/03	4, p. 12; 10, pp. 1, 11
326	326-SS-03	Back yard behind shed	03/25/03	4, p. 12; 10, pp. 1, 11
326	326-SS-04	Right corner of back yard	03/25/03	4, p. 12; 10, pp. 1, 11
327	327-SS-01	Front yard, right side of house	01/15/03	33, pp. 6, 15
327	327-SS-02	Front yard, left side of house	01/15/03	33, pp. 6, 15
327	327-SS-03	Side yard, to the left of the house	01/15/03	33, pp. 6, 15
327	327-SS-04	Back yard near clothesline	01/15/03	33, pp. 6, 15
327	327-SS-05	Back yard near patio and shed	01/15/03	33, pp. 6, 15
334	334-SS-01	Middle of front yard	03/27/03	10, pp. 33, 36
334	334-SS-02	Side yard (right)	03/27/03	10, pp. 33, 36
334	334-SS-03	Right corner of back yard	03/27/03	10, pp. 33, 36
334	334-SS-04	Side yard (left)	03/27/03	10, pp. 33, 36
336	336-SS-01	Middle of front yard	03/27/03	10, p. 36
336	336-SS-02	Side yard, to right of house	03/27/03	10, p. 36
336	336-SS-03	Back yard near patio	03/27/03	10, p. 36
336	336-SS-04	Side yard, to left of house	03/27/03	10, p. 36
337	337-SS-01	Front yard near garage, grass	01/10/03	33, pp. 5, 13
337	337-SS-02	Middle of front yard, grass	01/10/03	33, pp. 5, 13
337	337-SS-03	Back yard, grass	01/10/03	33, pp. 5, 13

TABLE 1
BACKGROUND SOIL SAMPLING LOCATIONS
(Page 2 of 6)

Station ID	Sample ID	Location	Sampling Date	Reference
337	337-SS-04	Middle of back yard, grass	01/10/03	33, pp. 5, 13
337	337-SS-05	Back yard near tree and porch, grass	01/10/03	33, pp. 5, 13
339	339-SS-01	Front yard to right of driveway	03/25/03	10, pp.11; 4, p. 12
339	339-SS-02	Front yard to left of driveway	03/25/03	10, pp.11; 4, p. 12
339	339-SS-03	Under playhouse in back yard	03/25/03	10, pp.11; 4, p. 12
339	339-SS-04	Back yard near shed	03/25/03	10, pp.11; 4, p. 12
344	344-SS-01	Front yard, left of house	01/10/03	33, pp. 4, 14
344	344-SS-02	Front yard, right of house middle of grass	01/10/03	33, pp. 4, 14
344	344-SS-03	Side yard, right of house in garden	01/10/03	33, pp. 4, 14
344	344-SS-04	Back yard in front of clothes line	01/10/03	33, pp. 4, 14
344	344-SS-05	Back yard to right of clothes line	01/10/03	33, pp. 4, 14
345	345-SS-01	Front yard near basketball hoop	01/10/03	33, pp. 5, 13
345	345-SS-02	Middle of front yard	01/10/03	33, pp. 5, 13
345	345-SS-03	Side yard (right side of house)	01/10/03	33, pp. 5, 13
345	345-SS-04	Next to swing set in back yard	01/10/03	33, pp. 5, 13
345	345-SS-05	Side yard (left side of house)	01/10/03	33, pp. 5, 13
348	348-SS-01	Middle of front yard	04/10/03	10, pp. 36, 37
348	348-SS-02	Side yard near gas/water meter	04/10/03	10, pp. 36, 37
348	348-SS-03	Back yard near barn/shed	04/10/03	10, pp. 36, 37
348	348-SS-04	Back yard	04/10/03	10, pp. 36, 37
350	350-SS-01	Middle of front yard, grass	01/10/03	33, pp. 4, 14
350	350-SS-02	Middle of side yard, grass	01/10/03	33, pp. 4, 14
350	350-SS-03	Middle of back yard, grass	01/10/03	33, pp. 4, 14
350	350-SS-04	Middle of side yard near chimney, grass	01/10/03	33, pp. 4, 14
354	354-SS-01	Middle of front yard, grass	01/10/03	33, pp. 4, 14
354	354-SS-02	Right side of house	01/10/03	33, pp. 4, 14
354	354-SS-03	Back yard near brick porch	01/10/03	33, pp. 4, 14

TABLE 1
BACKGROUND SOIL SAMPLING LOCATIONS
(Page 3 of 6)

Station ID	Sample ID	Location	Sampling Date	Reference
354	354-SS-04	Back yard next to clothes line	01/10/03	33, pp. 4, 14
355	355-SS-01	Front yard, middle	01/10/03	33, pp. 4, 14
355	355-SS-02	Side yard, left of house	01/10/03	33, pp. 4, 14
355	355-SS-03	Back yard, left of house	01/10/03	33, pp. 4, 14
355	355-SS-04	Back yard, right of house	01/10/03	33, pp. 4, 14
356	356-SS-01	Front yard, left of walkway, grass	12/19/02	33, pp. 3, 12
356	356-SS-02	Front yard, right of walkway, grass	12/19/02	33, pp. 3, 12
356	356-SS-03	North side of house, grass	12/19/02	33, pp. 3, 12
356	356-SS-04	Back yard center, grass	12/19/02	33, pp. 3, 12
356	356-SS-05	Driveway side of house, grass	12/19/02	33, pp. 3, 12
358	358-SS-01	Front yard, grass	12/17/02	7, pp. 6, 11
358	358-SS-02	Front yard between walkway and house	12/17/02	7, pp. 6, 11
358	358-SS-03	Corner of back yard between drive and house	12/17/02	7, pp. 6, 11
358	358-SS-04	Back yard, grass	12/17/02	7, pp. 6, 11
358	358-SS-05	Side yard, grass	12/17/02	7, pp. 6, 11
359	359-SS-01	Middle of front yard	04/10/03	4, p. 12; 32, p. 1
359	359-SS-02	Side yard	04/10/03	4, p. 12; 32, p. 1
359	359-SS-03	Back yard between fence and house	04/10/03	4, p. 12; 32, p. 1
359	359-SS-04	Back yard between pool and house	04/10/03	4, p. 12; 32, p. 1
360	360-SS-01	Middle of front yard	04/15/03	32, p. 8
360	360-SS-02	Right side of house to right of driveway	04/15/03	32, p. 8
360	360-SS-03	Right corner of back yard	04/15/03	32, p. 8
360	360-SS-04	Left corner of back yard	04/15/03	32, p. 8
363	363-SS-01	Front yard near street, grass	12/19/02	33, pp. 2, 11
363	363-SS-02	Front yard towards house, grass	12/19/02	33, pp. 2, 11
363	363-SS-03	Side of house, grass	12/19/02	33, pp. 2, 11
363	363-SS-04	Back yard near shed, grass	12/19/02	33, pp. 2, 11

TABLE 1
BACKGROUND SOIL SAMPLING LOCATIONS

Station ID	Sample ID	Location	Sampling Date	Reference
363	363-SS-05	Back yard near deck, grass	12/19/02	33, pp. 2, 11
365	365-SS-01	Middle of front yard, grass	01/10/03	33, p. 4, 14
365	365-SS-02	Front yard near walkway, grass	01/10/03	33, p. 4, 14
365	365-SS-03	Side yard, near chimney	01/10/03	33, p. 4, 14
365	365-SS-04	Middle of back yard, grass	01/10/03	33, p. 4, 14
365	365-SS-05	Side yard near shrubs, grass	01/10/03	33, p. 4, 14
366	366-SS-01	Front yard to left of driveway	04/29/03	5, pp. 4, 14
366	366-SS-02	Center of front yard	04/29/03	5, pp. 4, 14
366	366-SS-03	Right side of back yard near tree	04/29/03	5, pp. 4, 14
366	366-SS-04	Left side of back yard under clothes line	04/29/03	5, pp. 4, 14
367	367-SS-01	Right side of driveway, grass	03/25/03	10, pp. 4, 11; 4, p. 12
367	367-SS-02	Middle of yard on left side of driveway	03/25/03	10, pp. 4, 11; 4, p. 12
367	367-SS-03	Left side of house towards back yard	03/25/03	10, pp. 4, 11; 4, p. 12
367	367-SS-04	Middle of back yard	03/25/03	10, pp. 4, 11; 4, p. 12
367	367-SS-05	Small garden along right rear side of house	03/25/03	10, pp. 4, 11; 4, p. 12
372	372-SS-01	Left side of driveway near tree	03/25/03	10, pp. 4, 11; 4, p. 12
372	372-SS-02	Right side of front yard	03/25/03	10, pp. 4, 11; 4, p. 12
372	372-SS-03	Right side of shed in back yard	03/25/03	10, pp. 4, 11; 4, p. 12
372	372-SS-04	Near tree to right of house in back yard	03/25/03	10, pp. 4, 11; 4, p. 12
374	374-SS-01	Front yard, grass	12/19/02	33, pp. 3, 10
374	374-SS-02	Driveway side of house, grass	12/19/02	33, pp. 3, 10
374	374-SS-03	Back yard near house, grass	12/19/02	33, pp. 3, 10
374	374-SS-04	Back yard northwest corner, grass	12/19/02	33, pp. 3, 10
374	374-SS-05	North side of house, grass	12/19/02	33, pp. 3, 10
375	375-SS-01	Front yard center, grass	12/19/02	33, pp. 3, 11
375	375-SS-02	Front yard garden, unvegetated	12/19/02	33, pp. 3, 11
375	375-SS-03	Side of house near hedge, grass	12/19/02	33, pp. 3, 11

TABLE 1
BACKGROUND SOIL SAMPLING LOCATIONS
(Page 5 of 6)

Station ID	Sample ID	Location	Sampling Date	Reference
375	375-SS-04	Back yard center, grass	12/19/02	33, pp. 3, 11
375	375-SS-05	Driveway side of house, grass	12/19/02	33, pp. 3, 11
377	377-SS-01	Front yard near house and driveway	12/19/02	33, pp. 3, 11
377	377-SS-02	Front yard corner, grass	12/19/02	33, pp. 3, 11
377	377-SS-03	Side of house, grass	12/19/02	33, pp. 3, 11
377	377-SS-04	Back yard center, grass	12/19/02	33, pp. 3, 11
378	378-SS-01	Middle of front yard	04/10/03	32, p. 1
378	378-SS-02	Side yard	04/10/03	32, p. 1
378	378-SS-03	In flower patch near meter	04/10/03	32, p. 1
378	378-SS-04	Back yard	04/10/03	32, p. 1
380	380-SS-01	Corner of front yard, grass	12/17/02	7, p. 11; 33, p. 1
380	380-SS-02	Front yard between walkway and house	12/17/02	7, p. 11; 33, p. 1
380	380-SS-03	South side of house, grass	12/17/02	7, p. 11; 33, p. 1
380	380-SS-04	Back yard under swingset, disturbed grass	12/17/02	7, p. 11; 33, p. 1
380	380-SS-05	North side of house, grass	12/17/02	7, p. 11; 33, p. 1
381	381-SS-01	Front yard, grass	12/19/02	33, pp. 3, 10
381	381-SS-02	North side of house, grass	12/19/02	33, pp. 3, 10
381	381-SS-03	Northeast corner of back yard, grass	12/19/02	33, pp. 3, 10
381	381-SS-04	Back yard near patio, grass	12/19/02	33, pp. 3, 10
381	381-SS-05	South side of house, grass	12/19/02	33, pp. 3, 10
382	382-SS-01	Front yard center, grass	12/19/02	33, pp. 3, 11
382	382-SS-02	Side of house, grass	12/19/02	33, pp. 3, 11
382	382-SS-03	Back yard center, grass	12/19/02	33, pp. 3, 11
382	382-SS-04	Driveway side of house, grass	12/19/02	33, pp. 3, 11
384	384-SS-01	Front yard between retaining wall and street	04/10/03	10, p. 37
384	384-SS-02	Front yard between retaining wall and house	04/10/03	10, p. 37
384	384-SS-03	Garden on side of house	04/10/03	10, p. 37

TABLE 1
BACKGROUND SOIL SAMPLING LOCATIONS

Station ID	Sample ID	Location	Sampling Date	Reference
384	384-SS-04	Back corner of house near gate to back yard	04/10/03	10, p. 37
385	385-SS-01	Along right side of driveway	03/25/03	10, pp. 4, 12, 36
385	385-SS-02	Front yard near bush	03/25/03	10, pp. 4, 12, 36
385	385-SS-03	Side yard near Hillside Drive	03/25/03	10, pp. 4, 12, 36
385	385-SS-04	Flower bed along side of house	03/25/03	10, pp. 4, 12, 36

Notes:
ID = Identification
SS = Surface soil
All sampling locations are shown on Figures 4 through 6 in Appendix A. The sampling locations on the figures were located using the Global Positioning System (GPS). In cases where the sampling log does not provide a figure showing the sampling locations, the locations can be identified and verified on Figures 4 through 6 in Appendix A.

TABLE 2
BACKGROUND SOIL LEAD CONCENTRATIONS
FIXED LABORATORY RESULTS

Sample ID	Lead Conc. (mg/kg)	Data Qualifier	Adjustment Factor Value	Adjusted Value (mg/kg)	Detection Limit (mg/kg)	Reference
198-SS-03	87.6		NA		9.47	14, pp. 1, 4, 21, 25
325-SS-05	26.8		NA		3.77	17, pp. 1, 3, 12
326-SS-04	77.7	L	1.44	112	2	38, pp. 12, 37; 39, p. 18
327-SS-04	47.5	L	1.44	68	2	38, pp. 12, 38; 39, p. 18
337-SS-02	65.9	L	1.44	95	2	38, pp. 12, 39; 39, p. 18
344-SS-02	85		NA		3.77	17, pp. 1, 3, 11
354-SS-03	71		NA		3.77	17, pp. 1, 3, 10
355-SS-02	40.3		NA		3.77	17, pp. 1, 3, 9
360-SS-01	76.5		NA		3.81	22, pp. 1, 11; 35, pp. 1, 2, 7
366-SS-02	115		NA		3.82	20, pp. 1, 2, 8, 10; 22, pp. 1, 12
367-SS-03	35.4		NA		3.77	18, pp. 1, 4, 15, 32; 23, pp. 1, 20
385-SS-03	99.7		NA		3.81	18, pp. 1, 4, 17, 32; 23, pp. 1, 22

Notes:

ID	Identification
L	Estimated low
mg/kg	Milligrams per kilogram
NA	Not applicable
SS	Surface soil

Concentrations with a "L" data qualifier are estimated low and are adjusted according to Reference 39, Exhibit 3, p. 8. The concentrations are estimated low because the holding times were exceeded (Ref. 38, p. 2).
Reference 38 provides the contract-required quantitation limit (CRQL).

TABLE 3
BACKGROUND SOIL LEAD CONCENTRATIONS
XRF RESULTS
(Page 1 of 4)

Sample ID	Lead Conc. (mg/kg)	Standard Deviation	Adjusted Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
325-SS-01	40.1	12.2	52.3	50.0	3, p. 9; 41; 17, pp. 1, 3
325-SS-02	48.7	11.1	59.8	50.0	3, p. 9; 41; 17, pp. 1, 3
325-SS-03	77.0	12.8	89.8	50.0	3, p. 9; 41; 17, pp. 1, 3
325-SS-04	49.8	12.9	62.7	50.0	3, p. 9; 41; 17, pp. 1, 3
325-SS-05	45.3	12.7	58.0	50.0	3, p. 9; 41; 17, pp. 1, 3
326-SS-01	136.8	15.7	152.5	50.0	3, p. 21; 41; 18, pp. 1, 4
326-SS-02	87.3	13.9	101.2	50.0	3, p. 21; 41; 18, pp. 1, 4
326-SS-03	96.5	14.8	111.3	50.0	3, p. 21; 41; 18, pp. 1, 4
326-SS-04	91.2	13.3	104.5	50.0	3, p. 21; 41; 18, pp. 1, 4
327-SS-01	64.4	12.2	76.6	50.0	3, p. 12; 41; 17, pp. 1, 4
327-SS-02	53.5	12.7	66.2	50.0	3, p. 12; 41; 17, pp. 1, 4
327-SS-03	42.7	10.8	53.5	50.0	3, p. 12; 41; 17, pp. 1, 4
327-SS-04	62.3	12.6	74.9	50.0	3, p. 12; 41; 17, pp. 1, 4
327-SS-05	51.5	8.5	60.0	50.0	3, p. 12; 41; 17, pp. 1, 4
334-SS-01	121.0	15.8	136.8	50.0	3, p. 27; 41; 18, pp. 1, 6
334-SS-02	122.7	15.8	138.5	50.0	3, p. 27; 41; 18, pp. 1, 6
334-SS-03	65.2	13.5	78.7	50.0	3, p. 27; 41; 18, pp. 1, 6
334-SS-04	133.5	16.1	149.6	50.0	3, p. 27; 41; 18, pp. 1, 6
336-SS-01	132.3	15.2	147.5	50.0	3, p. 27; 41; 18, pp. 1, 6
336-SS-02	110.6	14.6	125.2	50.0	3, p. 27; 41; 18, pp. 1, 6
336-SS-03	111.2	15.1	126.3	50.0	3, p. 27; 41; 18, pp. 1, 6
336-SS-04	111.8	15.2	127.0	50.0	3, p. 27; 41; 18, pp. 1, 6
337-SS-01	93.8	13.7	107.5	50.0	3, p. 9; 41; 17, pp. 1, 3
337-SS-02	93.4	14.4	107.8	50.0	3, p. 9; 41; 17, pp. 1, 3
337-SS-03	70.9	13.0	83.9	50.0	3, p. 9; 41; 17, pp. 1, 3
337-SS-04	56.2	12.6	68.8	50.0	3, p. 9; 41; 17, pp. 1, 3
337-SS-05	74.6	14.3	88.9	50.0	3, p. 9; 41; 17, pp. 1, 3
339-SS-01	69.7	13.6	83.3	50.0	3, p. 21; 41; 18, pp. 1, 4
339-SS-02	102.9	14.1	117.0	50.0	3, p. 21; 41; 18, pp. 1, 4
339-SS-03	102.1	14.6	116.7	50.0	3, p. 21; 41; 18, pp. 1, 4
339-SS-04	95.1	14.9	110.0	50.0	3, p. 21; 41; 18, pp. 1, 4
344-SS-01	102.5	15.1	117.6	50.0	3, p. 9; 41; 17, pp. 1, 3
344-SS-02	74.4	13.2	87.6	50.0	3, p. 9; 41; 17, pp. 1, 3
344-SS-03	77.1	13.7	90.8	50.0	3, p. 9; 41; 17, pp. 1, 3
344-SS-04	73.4	13.7	87.1	50.0	3, p. 9; 41; 17, pp. 1, 3
344-SS-05	85.6	14.0	99.6	50.0	3, p. 9; 41; 17, pp. 1, 3
345-SS-01	96.2	14.8	111.0	50.0	3, p. 9; 41; 17, pp. 1, 3

TABLE 3
BACKGROUND SOIL LEAD CONCENTRATIONS
XRF RESULTS
(Page 2 of 4)

Sample ID	Lead Conc. (mg/kg)	Standard Deviation	Adjusted Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
345-SS-02	98.4	15.4	113.8	50.0	3, p. 9; 41; 17, pp. 1, 3
345-SS-03	109.8	14.4	124.2	50.0	3, p. 10; 41; 17, pp. 1, 3
345-SS-04	89.1	14.6	103.7	50.0	3, p. 10; 41; 17, pp. 1, 3
345-SS-05	100.4	15.3	115.7	50.0	3, p. 10; 41; 17, pp. 1, 3
348-SS-01	56.4	12.8	69.2	50.0	3, p. 40; 41; 35, pp. 1, 3
348-SS-02	84.4	15.1	99.5	50.0	3, p. 40; 41; 35, pp. 1, 3
348-SS-03	76.4	13.8	90.2	50.0	3, p. 40; 41; 35, pp. 1, 3
348-SS-04	45.6	12.0	57.6	50.0	3, p. 40; 41; 35, pp. 1, 3
350-SS-01	103.0	15.7	118.7	50.0	3, p. 10; 41; 17, pp. 1, 3
350-SS-02	88.8	14.9	103.7	50.0	3, p. 10; 41; 17, pp. 1, 3
350-SS-03	44.9	12.3	57.2	50.0	3, p. 10; 41; 17, pp. 1, 3
350-SS-04	94.5	13.9	108.4	50.0	3, p. 10; 41; 17, pp. 1, 3
354-SS-01	36.9	11.5	48.4	50.0	3, p. 10; 41; 17, pp. 1, 3
354-SS-02	85.9	14.1	100.0	50.0	3, p. 10; 41; 17, pp. 1, 3
354-SS-03	94.0	14.4	108.4	50.0	3, p. 10; 41; 17, pp. 1, 3
354-SS-04	131.8	14.8	146.6	50.0	3, p. 10; 41; 17, pp. 1, 3
355-SS-01	84.1	14.2	98.3	50.0	3, p. 10; 41; 17, pp. 1, 3
355-SS-02	58.0	12.3	70.3	50.0	3, p. 10; 41; 17, pp. 1, 3
355-SS-03	112.0	16.0	128.0	50.0	3, p. 10; 41; 17, pp. 1, 3
355-SS-04	86.1	14.5	100.6	50.0	3, p. 10; 41; 17, pp. 1, 3
356-SS-01	98.5	14.0	112.5	50.0	3, p. 5; 41
356-SS-02	151.0	18.0	169.0	50.0	3, p. 5; 41
356-SS-03	147.0	18.0	165.0	50.0	3, p. 5; 41
356-SS-04	173.0	18.0	191.0	50.0	3, p. 6; 41
356-SS-05	128.0	16.0	144.0	50.0	3, p. 6; 41
358-SS-01	109.0	15.0	124.0	50.0	3, p. 6; 41
358-SS-02	87.8	13.0	100.8	50.0	3, p. 6; 41
358-SS-03	158.0	17.0	175.0	50.0	3, p. 6; 41
359-SS-01	102.9	15.2	118.1	50.0	3, p. 36; 41; 19, pp. 1, 3
359-SS-02	100.3	16.1	116.4	50.0	3, p. 36; 41; 19, pp. 1, 3
359-SS-03	120.0	15.3	135.3	50.0	3, p. 36; 41; 19, pp. 1, 3
359-SS-04	76.9	13.8	90.7	50.0	3, p. 36; 41; 19, pp. 1, 3
360-SS-01	79.4	13.4	92.8	50.0	3, p. 37; 41; 35, pp. 1, 2, 7
360-SS-02	38.6	10.6	49.2	50.0	3, p. 37; 41; 35, pp. 1, 2, 7
360-SS-03	41.6	10.8	52.4	50.0	3, p. 37; 41; 35, pp. 1, 2, 7
360-SS-04	67.0	12.3	79.3	50.0	3, p. 37; 41; 35, pp. 1, 2, 7

TABLE 3
BACKGROUND SOIL LEAD CONCENTRATIONS
XRF RESULTS
(Page 3 of 4)

Sample ID	Lead Conc. (mg/kg)	Standard Deviation	Adjusted Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
363-SS-01	83.9	14.0	97.9	50.0	3, p. 6; 41
363-SS-02	100.0	16.0	116.0	50.0	3, p. 6; 41
363-SS-03	161.0	18.0	179.0	50.0	3, p. 6; 41
363-SS-04	176.0	17.0	193.0	50.0	3, p. 6; 41
363-SS-05	121.0	15.0	136.0	50.0	3, p. 6; 41
365-SS-01	97.4	14.9	112.3	50.0	3, p. 10; 41; 17, pp. 1, 3
365-SS-02	62.7	13.0	75.7	50.0	3, p. 10; 41; 17, pp. 1, 3
365-SS-03	79.8	14.0	93.8	50.0	3, p. 10; 41; 17, pp. 1, 3
365-SS-04	96.8	14.5	111.3	50.0	3, p. 10; 41; 17, pp. 1, 3
365-SS-05	104.0	15.2	119.2	50.0	3, p. 10; 41; 17, pp. 1, 3
366-SS-01	113.0	15.6	128.6	50.0	3, p. 43; 41; 20, pp. 1, 2
366-SS-02	112.6	15.2	127.8	50.0	3, p. 43; 41; 20, pp. 1, 2
366-SS-03	131.0	16.3	147.3	50.0	3, p. 43; 41; 20, pp. 1, 2
366-SS-04	103.4	15.3	118.7	50.0	3, p. 43; 41; 20, pp. 1, 2
367-SS-01	94.6	13.6	108.2	50.0	3, p. 21; 41;18, pp. 1, 4
367-SS-02	43.5	12.1	55.6	50.0	3, p. 21; 41;18, pp. 1, 4
367-SS-03	47.1	13.0	60.1	50.0	3, p. 21; 41;18, pp. 1, 4
367-SS-04	46.6	12.4	59.0	50.0	3, p. 21; 41;18, pp. 1, 4
367-SS-05	66.5	12.6	79.1	50.0	3, p. 21; 41;18, pp. 1, 4
372-SS-01	107.8	14.8	122.6	50.0	3, p. 22; 41; 18, pp. 1, 4
372-SS-02	97.5	14.8	112.3	50.0	3, p. 22; 41; 18, pp. 1, 4
372-SS-03	103.7	14.3	118.0	50.0	3, p. 22; 41; 18, pp. 1, 4
372-SS-04	80.1	12.8	92.9	50.0	3, p. 22; 41; 18, pp. 1, 4
374-SS-01	117.0	15.0	132.0	50.0	3, p. 6; 41
374-SS-02	131.0	17.0	148.0	50.0	3, p. 6; 41
374-SS-03	125.0	14.0	139.0	50.0	3, p. 6; 41
374-SS-04	127.0	16.0	143.0	50.0	3, p. 6; 41
374-SS-05	145.0	17.0	162.0	50.0	3, p. 6; 41
375-SS-01	49.9	12.0	61.9	50.0	3, p. 2; 41
375-SS-02	40.6	11.0	51.6	50.0	3, p. 2; 41
375-SS-03	45.9	13.0	58.9	50.0	3, p. 2; 41
375-SS-04	32.5	11.0	43.5	50.0	3, p. 2; 41
375-SS-05	56.4	13.0	69.4	50.0	3, p. 2; 41
377-SS-01	120.0	16.0	136.0	50.0	3, p. 7; 41
377-SS-02	134.0	16.0	150.0	50.0	3, p. 7; 41
377-SS-03	128.0	16.0	144.0	50.0	3, p. 7; 41
377-SS-04	119.0	16.0	135.0	50.0	3, p. 7; 41

TABLE 3
BACKGROUND SOIL LEAD CONCENTRATIONS
XRF RESULTS
(Page 4 of 4)

Sample ID	Lead Conc. (mg/kg)	Standard Deviation	Adjusted Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
378-SS-01	91.1	15.1	106.2	50.0	3, p. 37; 41; 35, pp. 1, 2
378-SS-02	117.5	16.3	133.8	50.0	3, p. 37; 41; 35, pp. 1, 2
378-SS-03	112.8	16.0	128.8	50.0	3, p. 37; 41; 35, pp. 1, 2
378-SS-04	105.9	15.2	121.1	50.0	3, p. 37; 41; 35, pp. 1, 2
380-SS-01	95.2	15.0	110.2	50.0	3, p. 7; 41
380-SS-02	55.9	13.0	68.9	50.0	3, p. 7; 41
380-SS-03	77.1	14.0	91.1	50.0	3, p. 7; 41
380-SS-04	103.0	16.0	119.0	50.0	3, p. 7; 41
380-SS-05	54.4	13.0	67.4	50.0	3, p. 7; 41
381-SS-01	146.0	17.0	163.0	50.0	3, p. 7; 41
381-SS-02	130.0	17.0	147.0	50.0	3, p. 7; 41
381-SS-03	109.0	16.0	125.0	50.0	3, p. 7; 41
381-SS-04	126.0	16.0	142.0	50.0	3, p. 7; 41
381-SS-05	149.0	16.0	165.0	50.0	3, p. 7; 41
382-SS-01	137.0	17.0	154.0	50.0	3, p. 7; 41
382-SS-02	115.0	16.0	131.0	50.0	3, p. 7; 41
382-SS-03	117.0	15.0	132.0	50.0	3, p. 7; 41
382-SS-04	119.0	15.0	134.0	50.0	3, p. 7; 41
384-SS-01	50.9	13.2	64.1	50.0	3, p. 40; 41; 35, p. 3
384-SS-02	105.8	15.7	121.5	50.0	3, p. 40; 41; 35, p. 3
384-SS-04	122.1	16.0	138.1	50.0	3, p. 40; 41; 35, p. 3
385-SS-01	124.6	16.1	140.7	50.0	3, p. 22; 41; 18, pp. 1, 4
385-SS-02	106.1	15.1	121.2	50.0	3, p. 22; 41; 18, pp. 1, 4
385-SS-03	103.3	14.4	117.7	50.0	3, p. 22; 41; 18, pp. 1, 4
385-SS-04	44.0	11.6	55.6	50.0	3, p. 22; 41; 18, pp. 1, 4

Notes:
ID = Identification
mg/kg = Milligrams per kilogram
SS = Surface soil
XRF = X-ray fluorescence

The lead concentrations in the XRF logbooks (References 3, 13, 36, and 37) differ from the lead concentrations reported in the data validation reports (References 14 through 20, and 34) because the concentrations entered in the logbook were rounded off from the XRF instrument and the lead concentrations presented in the data validation reports were taken from the XRF data printout (Ref. 42, p. 2).

TABLE 4
RELEASE SOIL SAMPLING LOCATIONS
(Page 1 of 13)

Station ID	Sample ID	Sample Description	Sample Date	Reference
003	003-SS-01	Front yard	11/04/02	6, pp. 1, 13
003	003-SS-02	Side yard	11/04/02	6, pp. 1, 13
003	003-SS-03	Back yard	11/04/02	6, pp. 1, 13
003	003-SS-04	Back yard	11/04/02	6, pp. 1, 13
003	003-SS-05	Garden	11/04/02	6, pp. 1, 13
004	004-SS-01	Side yard	11/04/02	6, pp. 1, 25
004	004-SS-02	Side yard	11/04/02	6, pp. 1, 25
004	004-SS-03	Back yard	11/04/02	6, pp. 1, 25
004	004-SS-04	Back yard	11/04/02	6, pp. 1, 25
005	005-SS-01	Back yard	11/04/02	6, pp. 1, 16
005	005-SS-02	Back yard	11/04/02	6, pp. 1, 16
005	005-SS-03	Back yard	11/04/02	6, pp. 1, 16
006	006-SS-01	Side yard	11/04/02	6, pp. 1, 16
006	006-SS-02	Side yard	11/04/02	6, pp. 1, 16
006	006-SS-03	Back yard	11/04/02	6, pp. 1, 16
006	006-SS-04	Back yard	11/04/02	6, pp. 1, 16
007	007-SS-01	Back yard	11/04/02	6, pp. 2, 13
007	007-SS-02	Back yard	11/04/02	6, pp. 2, 13
007	007-SS-03	Back yard	11/04/02	6, pp. 2, 13
007	007-SS-04	Back yard	11/04/02	6, pp. 2, 13
008	008-SS-01	Front yard	11/04/02	6, pp. 2, 13
008	008-SS-02	Back yard	11/04/02	6, pp. 2, 13
008	008-SS-03	Back	11/04/02	6, pp. 2, 13
009	009-SS-01	Near table	11/04/02	6, pp. 2, 25
009	009-SS-02	Flower bed	11/04/02	6, pp. 2, 25
009	009-SS-03	Back yard	11/04/02	6, pp. 2, 25
010	010-SS-01	Side yard	11/04/02	6, pp. 2, 16
010	010-SS-02	Back yard	11/04/02	6, pp. 2, 16
010	010-SS-03	Back yard	11/04/02	6, pp. 2, 16
010	010-SS-04	Garden	11/04/02	6, pp. 2, 16
011	011-SS-01	Back yard	11/04/02	6, pp. 2, 14
011	011-SS-02	Back yard	11/04/02	6, pp. 2, 14
011	011-SS-03	Back yard	11/04/02	6, pp. 2, 14
014	014-SS-01	Gate	11/04/02	6, pp. 3, 25
014	014-SS-02	Back yard	11/04/02	6, pp. 3, 25
014	014-SS-03	Back yard	11/04/02	6, pp. 3, 25
016	016-SS-02	Back yard, grass	11/04/02	6, pp. 3, 15
016	016-SS-03	Back yard, garden	11/04/02	6, pp. 3, 15

TABLE 4
RELEASE SOIL SAMPLING LOCATIONS
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Station ID	Sample ID	Sample Description	Sample Date	Reference
018	018-SS-01	Grass	11/04/02	6, pp. 3, 16
018	018-SS-02	Garden	11/04/02	6, pp. 3, 16
018	018-SS-03	Garden	11/04/02	6, pp. 3, 16
023	023-SS-01	Back yard	11/05/02	6, pp. 5, 18
023	023-SS-02	Back yard	11/05/02	6, pp. 5, 18
023	023-SS-03	Garden	11/05/02	6, pp. 5, 18
023	023-SS-04	Outside fence	11/05/02	6, pp. 5, 18
024	024-SS-02	Back yard	11/05/02	6, pp. 5, 21
024	024-SS-03	Back yard	11/05/02	6, pp. 5, 21
025	025-SS-01	Back yard	11/05/02	6, pp. 5, 23
025	025-SS-02	Back yard	11/05/02	6, pp. 5, 23
025	025-SS-03	Back yard	11/05/02	6, pp. 5, 23
025	025-SS-04	Garden	11/05/02	6, pp. 5, 23
026	026-SS-01	Sidewalk	11/04/02	6, pp. 5, 24
026	026-SS-02	Garden	11/04/02	6, pp. 5, 24
026	026-SS-03	Side yard	11/04/02	6, pp. 5, 24
026	026-SS-04	Back yard	11/04/02	6, pp. 5, 24
027	027-SS-01	Front yard	11/04/02	6, pp. 5, 24
027	027-SS-02	Front yard	11/04/02	6, pp. 5, 24
027	027-SS-03	Flower bed	11/04/02	6, pp. 5, 24
029	029-SS-01	Back yard	11/04/02	6, pp. 6, 24
029	029-SS-02	Back yard	11/04/02	6, pp. 6, 24
031	031-SS-01	Back yard	11/04/02	6, pp. 6, 24
031	031-SS-02	Back yard	11/04/02	6, pp. 6, 24
032	032-SS-01	Front yard	11/05/02	6, pp. 6, 20
032	032-SS-02	Back yard	11/05/02	6, pp. 6, 20
032	032-SS-04	Outside fence in back	11/05/02	6, pp. 6, 20
034	034-SS-01	Grass	11/05/02	6, pp. 6, 22
034	034-SS-02	Flower bed	11/05/02	6, pp. 6, 22
034	034-SS-03	Garden (tomato)	11/05/02	6, pp. 6, 22
035	035-SS-01	Back yard	11/05/02	6, pp. 7, 23
035	035-SS-02	Back yard	11/05/02	6, pp. 7, 23
035	035-SS-03	Back yard	11/05/02	6, pp. 7, 23
035	035-SS-04	Back yard	11/05/02	6, pp. 7, 23
035	035-SS-05	Back yard	11/05/02	6, pp. 7, 23
036	036-SS-02	Garden	11/04/02	6, pp. 7, 24
036	036-SS-03	Back yard	11/04/02	6, pp. 7, 24

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RELEASE SOIL SAMPLING LOCATIONS
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Station ID	Sample ID	Sample Description	Sample Date	Reference
037	037-SS-03	Back yard	11/05/02	6, pp. 7, 21
038	038-SS-02	Back yard	11/05/02	6, pp. 7, 21
038	038-SS-03	Back yard	11/05/02	6, pp. 7, 21
039	039-SS-01	Back yard	11/04/02	6, pp. 7, 18
039	039-SS-02	Back yard	11/04/02	6, pp. 7, 18
039	039-SS-03	Back yard	11/04/02	6, pp. 7, 18
042	042-SS-01	Back yard	11/04/02	6, pp. 8, 18
042	042-SS-02	Back yard	11/04/02	6, pp. 8, 18
042	042-SS-03	Side yard	11/04/02	6, pp. 8, 18
043	043-SS-01	In only grass area	11/04/02	6, pp. 8, 22
044	044-SS-01	Side yard	11/05/02	6, pp. 8, 23
044	044-SS-02	Garden	11/05/02	6, pp. 8, 23
044	044-SS-03	Back yard	11/05/02	6, pp. 8, 23
044	044-SS-04	Back yard	11/05/02	6, pp. 8, 23
044	044-SS-05	Back yard	11/05/02	6, pp. 8, 23
044	044-SS-06	Back yard	11/05/02	6, pp. 8, 23
045	045-SS-01	Side yard	11/05/02	6, pp. 8, 21
045	045-SS-02	Back yard	11/05/02	6, pp. 8, 21
045	045-SS-03	Back yard	11/05/02	6, pp. 8, 21
045	045-SS-04	Back yard	11/05/02	6, pp. 8, 21
047	047-SS-01	Back yard	11/05/02	6, pp. 8, 22
047	047-SS-02	Back yard	11/05/02	6, pp. 8, 22
054	054-SS-01	Front yard	11/05/02	6, p. 10
057	057-SS-02	Side yard	11/05/02	6, pp. 10, 22
057	057-SS-03	Back yard	11/05/02	6, pp. 10, 22
057	057-SS-04	Back yard	11/05/02	6, pp. 10, 22
059	059-SS-01	Front yard	11/05/02	6, pp. 10, 17
059	059-SS-03	Back yard	11/05/02	6, pp. 10, 17
066	066-SS-01	Back yard	11/05/02	6, p. 12
066	066-SS-02	Back yard	11/05/02	6, p. 12
067	067-SS-01	Back yard, near steps	11/05/02	6, p. 12
067	067-SS-02	Back yard, near garage	11/05/02	6, p. 12
069	069-SS-01	Front yard	11/05/02	6, pp. 12, 20
069	069-SS-02	Back yard	11/05/02	6, pp. 12, 20
069	069-SS-03	Back yard	11/05/02	6, pp. 12, 20

TABLE 4
RELEASE SOIL SAMPLING LOCATIONS
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Station ID	Sample ID	Sample Description	Sample Date	Reference
069	069-SS-04	Back yard, near fence	11/05/02	6, pp. 12, 20
070	070-SS-01	Left side yard, along fence	04/29/03	5, pp. 1, 6
070	070-SS-02	Left side of back yard	04/29/03	5, pp. 1, 6
070	070-SS-03	Vegetable garden, right side of back yard	04/29/03	5, pp. 1, 6
070	070-SS-04	Center of back yard near Apple Alley	04/29/03	5, pp. 1, 6
075	075-SS-01	Back yard near house, on hill	04/30/03	5, pp.1, 7
075	075-SS-02	Middle of back yard	04/30/03	5, pp.1, 7
075	075-SS-03	Back yard near Primrose Alley	04/30/03	5, p.1
077	077-SS-01	Front yard, grass	11/15/02	9, pp. 10, 13
078	078-SS-01	Back yard	11/19/02	9, pp. 3, 9
078	078-SS-02	Back yard	11/19/02	9, pp. 3, 9
078	078-SS-03	Back yard	11/19/02	9, pp. 3, 9
078	078-SS-04	Back yard	11/19/02	9, pp. 3, 9
079	079-SS-01	Back yard - flower garden	11/20/02	9, pp. 3, 7
079	079-SS-02	Back yard	11/20/02	9, pp. 3, 7
079	079-SS-03	Back yard	11/20/02	9, pp. 3, 7
080	080-SS-02	Side yard - next to house	11/19/02	9, pp. 3, 8
080	080-SS-03	Back yard	11/19/02	9, pp. 3, 8
080	080-SS-04	Back yard	11/19/02	9, pp. 3, 8
080	080-SS-05	Back yard	11/19/02	9, pp. 3, 8
081	081-SS-05	Back yard	11/20/02	9, pp. 3, 7
082	082-SS-01	Back yard	11/19/02	9, pp. 3, 9
082	082-SS-02	Back yard	11/19/02	9, pp. 3, 9
082	082-SS-03	Back yard	11/19/02	9, pp. 3, 9
082	082-SS-04	Back yard	11/19/02	9, pp. 3, 9
084	084-SS-01	Side yard, under deck	11/25/02	12, pp. 5, 7
084	084-SS-02	Back yard, grass	11/25/02	12, pp. 5, 7
084	084-SS-03	Back yard, grass	11/25/02	12, pp. 5, 7
084	084-SS-04	Back yard, near driveway	11/25/02	12, pp. 5, 7
086	086-SS-01	Front yard	11/20/02	9, pp. 4, 5
086	086-SS-02	Back yard	11/20/02	9, pp. 4, 5
086	086-SS-03	Back yard - flower garden	11/20/02	9, pp. 4, 5
086	086-SS-04	Back yard	11/20/02	9, pp. 4, 5
087	087-SS-01	Flower garden	11/20/02	9, pp. 4, 7

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RELEASE SOIL SAMPLING LOCATIONS
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Station ID	Sample ID	Sample Description	Sample Date	Reference
087	087-SS-02	Back yard	11/20/02	9, pp. 4, 7
087	087-SS-03	Back yard	11/20/02	9, pp. 4, 7
090	090-SS-01	Back yard, grass	11/19/02	9, pp. 4, 8
090	090-SS-02	Back yard, grass under swingset	11/19/02	9, pp. 4, 8
098	098-SS-01	Back yard	11/20/02	9, pp. 2, 7
098	098-SS-02	Back yard	11/20/02	9, pp. 2, 7
098	098-SS-03	Back yard - dirt/gravel patio	11/20/02	9, pp. 2, 7
099	099-SS-01	Front, grass	11/20/02	12, pp. 5, 9
099	099-SS-02	Side, under shrubs	11/20/02	12, pp. 5, 9
099	099-SS-03	Back, grass	11/20/02	12, pp. 5, 9
099	099-SS-04	Back, grass	11/20/02	12, pp. 5, 9
099	099-SS-05	Back, grass	11/20/02	12, pp. 5, 9
100	100-SS-01	Side	11/21/02	12, pp. 5, 8
100	100-SS-02	Side	11/21/02	12, pp. 5, 8
100	100-SS-03	Side/back, strawberry garden	11/21/02	12, pp. 5, 8
100	100-SS-04	Back yard	11/21/02	12, pp. 5, 8
100	100-SS-05	Back yard	11/21/02	12, pp. 5, 8
100	100-SS-06	Back yard	11/21/02	12, pp. 5, 8
102	102-SS-02	Back yard, grass	11/15/02	9, pp. 10, 15
102	102-SS-04	Back yard, near soccer net	11/15/02	9, pp. 10, 15
103	103-SS-01	Back yard	11/21/02	12, pp. 5, 8
103	103-SS-02	Back yard	11/21/02	12, pp. 5, 8
103	103-SS-03	Back yard	11/21/02	12, pp. 5, 8
103	103-SS-04	Back yard, outside gate	11/21/02	12, pp. 5, 8
104	104-SS-01	Front yard, grass	11/20/02	12, pp. 5, 9
104	104-SS-02	Back yard, grass	11/20/02	12, pp. 5, 9
104	104-SS-03	Back yard, grass	11/20/02	12, pp. 5, 9
104	104-SS-04	Back yard, near driveway	11/20/02	12, pp. 5, 9
106	106-SS-01	Back yard, near grape trellis	11/20/02	12, pp. 6, 7
106	106-SS-02	Back yard, grass	11/20/02	12, pp. 6, 7
106	106-SS-03	Back yard, grass	11/20/02	12, pp. 6, 7
108	108-SS-01	Front yard, grass	11/20/02	12, pp. 6, 9
108	108-SS-03	Back yard, grass	11/20/02	12, pp. 6, 9
108	108-SS-04	Back yard, grass	11/20/02	12, pp. 6, 9
109	109-SS-01	Front yard, grass	11/20/02	12, pp. 6, 9
109	109-SS-02	Side yard, grass	11/20/02	12, pp. 6, 9
109	109-SS-03	Side yard, grass	11/20/02	12, pp. 6, 9

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RELEASE SOIL SAMPLING LOCATIONS
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Station ID	Sample ID	Sample Description	Sample Date	Reference
109	109-SS-04	Side yard, grass	11/20/02	12, pp. 6, 9
110	110-SS-01	Side yard, grass	11/20/02	12, pp. 6, 7
110	110-SS-02	Back yard, grass	11/20/02	12, pp. 6, 7
110	110-SS-03	Back yard, grass near kids swings	11/20/02	12, pp. 6, 7
110	110-SS-04	Back yard, grass near big swing	11/20/02	12, pp. 6, 7
110	110-SS-05	Back of garage	11/20/02	12, pp. 6, 7
111	111-SS-01	Back yard	11/21/02	12, pp. 6, 8
111	111-SS-02	Back yard	11/21/02	12, pp. 6, 8
111	111-SS-03	Back yard	11/21/02	12, pp. 6, 8
114	114-SS-01	Front yard, grass	11/25/02	12, p. 1, 3
114	114-SS-04	Back yard, grass outside	11/25/02	12, p. 1, 3
114	114-SS-05	Side of house under deck	11/25/02	12, p. 1, 3
115	115-SS-01	Front yard, grass	11/25/02	12, p. 1, 3
115	115-SS-02	Front yard, grass	11/25/02	12, p. 1, 3
115	115-SS-03	Side yard, grass	11/25/02	12, p. 1, 3
115	115-SS-04	Back yard, grass	11/25/02	12, p. 1, 3
115	115-SS-05	Back yard, tier near garage with ivy cover	11/25/02	12, p. 1, 3
115	115-SS-06	Back yard, lowest tier with ivy cover	11/25/02	12, p. 1, 3
121	121-SS-01	Front yard, grass	11/25/02	12, pp. 1, 4
121	121-SS-02	Side yard, garden	11/25/02	12, pp. 1, 4
121	121-SS-03	Back yard, grass	11/25/02	12, pp. 1, 4
121	121-SS-04	Back yard, grass	11/25/02	12, pp. 1, 4
122	122-SS-04	Middle of back yard (left side)	04/16/03	32, p. 7
122	122-SS-05	Side yard at end of paved driveway	04/16/03	32, p. 7
123	123-SS-01	Back yard, grass outside fence	11/25/02	12, pp. 1, 3
123	123-SS-02	Back yard, grass inside fence	11/25/02	12, pp. 1, 3
125	125-SS-01	Front yard, grass	11/25/02	12, pp. 2, 4
125	125-SS-02	Front yard, grass	11/25/02	12, pp. 2, 4
125	125-SS-03	Back yard, grass	11/25/02	12, pp. 2, 4
125	125-SS-04	Back yard, grass	11/25/02	12, pp. 2, 4
125	125-SS-05	Back yard, grass	11/25/02	12, pp. 2, 4
125	125-SS-06	Back yard, grass	11/25/02	12, pp. 2, 4
125	125-SS-07	Back yard, grass	11/25/02	12, pp. 2, 4

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RELEASE SOIL SAMPLING LOCATIONS
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Station ID	Sample ID	Sample Description	Sample Date	Reference
126	126-SS-01	Back yard, grass	11/14/02	9, pp. 12, 14
126	126-SS-02	Back yard, grass	11/14/02	9, pp. 12, 14
126	126-SS-03	Back yard, grass	11/14/02	9, pp. 12, 14
128	128-SS-01	Middle of front yard	04/30/03	5, pp. 1, 8
128	128-SS-02	Side yard along Arch Street	04/30/03	5, pp. 1, 8
128	128-SS-03	Center of back yard	04/30/03	5, pp. 1, 8
132	132-SS-01	Back yard near patio	03/25/03	10, pp. 1, 14
132	132-SS-02	Back yard behind shed towards Peach Alley	03/25/03	10, pp. 1, 14
				10, pp. 1, 14
134	134-SS-01	Front yard near flag pole, flower bed	03/25/03	10, pp. 1, 14
134	134-SS-02	Side yard near gate to fence	03/25/03	10, pp. 1, 14
134	134-SS-03	Back yard near pool	03/25/03	10, pp. 1, 14
134	134-SS-04	Back yard between fence and sidewalk	03/25/03	10, pp. 1, 14
136	136-SS-01	Front yard near top of porch	04/14/03	4, pp. 5, 8
138	138-SS-01	Back yard next to patio	04/30/03	5, pp. 1, 5
138	138-SS-02	Back yard along fence in flower garden	04/30/03	5, pp. 1, 5
139	139-SS-01	Front yard, below porch	04/16/03	32, p. 4
143	143-SS-01	Front yard	03/27/03	10, p. 35
143	143-SS-02	Back yard near patio	03/27/03	10, p. 35
143	143-SS-03	Back yard in front of fence	03/27/03	10, p. 35
146	146-SS-01	Front yard	04/30/03	5, pp. 2, 10
146	146-SS-02	Back yard near house	04/30/03	5, pp. 2, 10
147	147-SS-01	Near house and stone garden	12/02/02	7, pp. 41, 43
147	147-SS-02	Midway down back yard	12/02/02	7, pp. 41, 43
147	147-SS-03	Under car port	12/02/02	7, pp. 41, 43
155	155-SS-02	Back yard under swingset, grass	12/18/02	7, p. 9
156	156-SS-02	Back yard near porch	04/14/03	4, pp. 4, 9
156	156-SS-03	Back yard to left of fountain	04/14/03	4, pp. 4, 9
161	161-SS-01	Front yard near steps	04/14/03	4, pp. 4, 8
161	161-SS-02	Back yard near porch	04/14/03	4, pp. 4, 8

TABLE 4
RELEASE SOIL SAMPLING LOCATIONS

Station ID	Sample ID	Sample Description	Sample Date	Reference
162	162-SS-01	Front yard along 3rd Street	06/13/03	10, pp. 1, 17
162	162-SS-02	Back yard to left of walkway to shed	03/25/03	10, pp. 1, 17
162	162-SS-03	Back yard behind play house	03/25/03	10, pp. 1, 17
162	162-SS-04	Back yard in front of shed (right side of walk)	03/25/03	10, pp. 1, 17
163	163-SS-01	Front yard, below porch	04/16/03	32, p. 4
164	164-SS-01	Front yard (left side)	03/27/03	10, p. 33
164	164-SS-02	Side yard near tree	03/27/03	10, p. 33
164	164-SS-03	Back yard near house	03/27/03	10, p. 33
164	164-SS-04	Back yard near Apple Alley	03/27/03	10, p. 33
166	166-SS-01	Front yard near steps	04/14/03	4, pp. 4, 8
166	166-SS-02	Back yard near porch	04/14/03	4, pp. 4, 8
166	166-SS-03	Back yard near back clothesline post	04/14/03	4, pp. 4, 8
167	167-SS-01	Back yard, close to porch	01/15/03	33, pp. 6, 7
167	167-SS-02	Middle of back yard	01/15/03	33, pp. 6, 7
167	167-SS-03	Vegetable garden in back (closer to house)	01/15/03	33, pp. 6, 7
167	167-SS-04	Vegetable garden in back (closer to garage)	01/15/03	33, pp. 6, 7
169	169-SS-01	Back yard, grass	03/26/03	10, p. 31
169	169-SS-02	Garden in front of shed in back yard	03/26/03	10, p. 31
176	176-SS-01	Back yard near tarp, grass	12/17/02	7, pp. 7, 10, 30
176	176-SS-02	Garden in center of back yard, unvegetated	12/17/02	7, pp. 7, 10, 30
177	177-SS-01	Center of yard between porch and tree	03/26/03	10, p. 34
177	177-SS-02	Near tree in back of yard	03/26/03	10, p. 34
179	179-SS-01	Front yard	04/30/03	5, pp. 2, 10
179	179-SS-02	Side yard	04/30/03	5, pp. 2, 10
179	179-SS-04	Back yard near swing set	04/30/03	5, pp. 2, 10
183	183-SS-01	Middle of front yard	03/27/03	10, p. 33
184	184-SS-01	Front yard under bushes	04/16/03	32, p. 6
184	184-SS-02	Back yard near steps to deck	04/16/03	32, p. 6
184	184-SS-03	Right side of back yard near fence (rear)	04/16/03	32, p. 6

TABLE 4
RELEASE SOIL SAMPLING LOCATIONS
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Station ID	Sample ID	Sample Description	Sample Date	Reference
185	185-SS-01	Back yard near house	03/25/03	10, pp. 3, 14
185	185-SS-02	Back yard near shed	03/25/03	10, pp. 3, 14
186	186-SS-02	Back yard near basketball hoop	04/10/03	4, pp. 2, 11
187	187-SS-01	Front yard	04/16/03	32, p. 5
189	189-SS-01	Back yard, 5 feet from tree	12/02/02	7, pp. 41, 44
189	189-SS-02	Back yard, 10 feet from the shed, grass	12/02/02	7, pp. 41, 44
191	191-SS-01	Front yard	04/30/03	5, pp. 2, 10
191	191-SS-02	Side yard	04/30/03	5, pp. 2, 10
191	191-SS-03	Back yard in flower garden	04/30/03	5, pp. 2, 10
191	191-SS-04	Back yard to left of sidewalk	04/30/03	5, pp. 2, 10
194	194-SS-01	Front of house on bank, grass	01/16/03	10, pp. 6, 28
194	194-SS-03	Left side of steps	01/16/03	10, pp. 6, 28
194	194-SS-05	Back yard, near concrete walkway	01/16/03	10, pp. 6, 28
				10, pp. 6, 28
200	200-SS-01	Front yard near steps, grass	01/16/03	10, pp. 6, 28
200	200-SS-05	Back yard next to sandbox, grass	01/16/03	10, pp. 6, 28
201	201-SS-04	Back yard, right side of driveway	04/15/03	5, pp. 3, 11
202	202-SS-01	Back yard to left of walk way	03/26/03	10, p. 32
202	202-SS-02	Back yard in garden in back right corner	03/26/03	10, p. 32
203	203-SS-01	Garden in back yard near house	12/02/02	7, pp. 41, 43
203	203-SS-02	Grass near fence in back yard	12/02/02	7, pp. 41, 43
203	203-SS-03	Near alley in back yard, dirt/gravel	12/02/02	7, pp. 41, 43
204	204-SS-01	Back yard, grass	12/10/02	7, pp. 25, 45
204	204-SS-02	Back yard, grass	12/10/02	7, pp. 25, 45
209	209-SS-01	Back yard, garden near house	12/02/02	7, pp. 41, 43
209	209-SS-02	Middle of back yard	12/02/02	7, pp. 41, 43

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RELEASE SOIL SAMPLING LOCATIONS
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Station ID	Sample ID	Sample Description	Sample Date	Reference
214	214-S-01	Back yard, near shed	12/02/02	7, pp. 41, 43
214	214-SS-02	Back yard, near house/patio	12/02/02	7, pp. 41, 43
217	217-SS-02	Back yard in center, grass	12/17/02	7, pp. 2, 35
218	218-SS-01	Back yard, near rear of house	12/02/02	7, pp. 40, 42
218	218-SS-02	Back yard, center of grass	12/02/02	7, pp. 40, 42
218	218-SS-03	Back yard, in large garden	12/02/02	7, pp. 40, 42
220	220-SS-01	Near cement porch	03/25/03	10, pp. 5, 16
220	220-SS-02	Far end of yard near wall	03/25/03	10, pp. 5, 16
225	225-SS-02	Center of back yard	04/30/03	5, pp. 3, 10
225	225-SS-03	Back yard near shed	04/30/03	5, pp. 3, 10
226	226-SS-01	Back yard near porch	04/14/03	4, pp. 3, 7
226	226-SS-02	Back yard near gate	04/14/03	4, pp. 3, 7
233	233-SS-01	Front yard in front of miniature well	04/14/03	4, pp. 3, 8
233	233-SS-02	Back yard near porch and pine tree	04/14/03	4, pp. 3, 8
234	234-SS-01	Front yard near side walk	03/27/03	4, p. 10
234	234-SS-02	Back yard near patio	03/27/03	4, p. 10
234	234-SS-03	Back yard between shed and fence, right side	03/27/03	4, p. 10
239	239-SS-03	Near shed in backyard	04/10/03	4, pp. 3, 10
244	244-SS-01	Side yard near fence along S. 3rd Street	03/26/03	10, p. 29
244	244-SS-02	Side yard along fence adjacent to next house	03/26/03	10, p. 29
244	244-SS-04	Right corner of back yard	03/26/03	10, p. 29
247	247-SS-01	Front yard in garden below steps	04/14/03	4, pp. 2, 7
247	247-SS-02	Side yard under clothesline	04/14/03	4, pp. 2, 7
248	248-SS-01	Back yard near house	03/27/03	10, pp. 33, 34
250	250-SS-01	Side yard behind bushes along S. 3rd Street	03/26/03	10, p. 29
250	250-SS-02	Middle of side yard	03/26/03	10, p. 29

TABLE 4
RELEASE SOIL SAMPLING LOCATIONS
(Page 11 of 13)

Station ID	Sample ID	Sample Description	Sample Date	Reference
250	250-SS-03	Back yard to left of walk way	03/26/03	10, p. 29
251	251-SS-01	Garden on right side of house	01/15/03	33, pp. 6, 9
251	251-SS-02	Middle of grassy area between two garages	01/15/03	33, pp. 6, 9
251	251-SS-03	Along fence in rear of property	01/15/03	33, pp. 6, 9
253	253-SS-01	Back yard, right side of house, grass	01/16/03	10, pp. 6, 13
253	253-SS-02	Back yard, garden next to shed	01/16/03	10, pp. 6, 13
253	253-SS-03	Back yard, along fence in rear of property	01/16/03	10, pp. 6, 13
255	255-SS-01	Left side of house in front yard	04/16/03	3, p. 39
256	256-SS-01	Front yard next to handrail	04/14/03	4, pp. 3, 7
256	256-SS-02	Back yard near deck	04/14/03	4, pp. 3, 7
262	262-SS-01	Slope in back yard near steps, weed cover	12/17/02	7, pp. 7, 9, 16
262	262-SS-02	Center of back yard, grass	12/17/02	7, pp. 7, 9, 16
262	262-SS-03	Back yard towards garage, grass	12/17/02	7, pp. 7, 9, 16
262	262-SS-04	Driveway behind house, unvegetated	12/17/02	7, pp. 7, 9, 16
264	264-SS-01	Front yard, left of sidewalk near bush	03/27/03	3, p. 26
264	264-SS-02	Back yard next to stairs to driveway	03/27/03	3, p. 26
264	264-SS-03	Back yard near pine tree	03/27/03	3, p. 26
265	265-SS-01	Front yard to left of steps	03/27/03	10, p. 33; 32, p. 5
265	265-SS-02	Back yard near patio	03/27/03	10, p. 33; 32, p. 5
265	265-SS-03	Back yard near shed	03/27/03	10, p. 33; 32, p. 5
271	271-SS-01	Back yard, near driveway	12/02/02	7, pp. 40, 42
271	271-SS-02	Garden on right when facing house	12/02/02	7, pp. 40, 42
271	271-SS-03	Grass on left side facing house	12/02/02	7, pp. 40, 42
271	271-SS-04	Back yard near house	12/02/02	7, pp. 40, 42
271	271-SS-05	Garden near back of house	12/02/02	7, pp. 40, 42
271	271-SS-06	Side yard near front of house	12/02/02	7, pp. 40, 42

TABLE 4
RELEASE SOIL SAMPLING LOCATIONS
(Page 12 of 13)

Station ID	Sample ID	Sample Description	Sample Date	Reference
279	279-SS-01	Middle of front yard	04/14/03	4, pp. 6, 8
279	279-SS-03	Back yard near garage	04/14/03	4, pp. 6, 8
283	283-SS-01	Middle of front yard	04/14/03	4, pp. 6, 8
283	283-SS-03	Back yard near garage	04/14/03	4, pp. 6, 8
287	287-SS-01	Front yard on right	04/16/03	32, p. 4
287	287-SS-02	Front yard on left	04/16/03	32, p. 4
287	287-SS-03	Back yard, right of driveway close to garage	04/16/03	32, p. 4
289	289-SS-01	Back yard near house	03/25/03	10, p. 2, 14
289	289-SS-02	Middle of back yard	03/25/03	10, p. 2, 14
289	289-SS-03	Back yard, in kennel area beyond gate	03/25/03	10, p. 2, 14
290	290-SS-01	Grass area on side/back of house	12/04/02	7, pp. 37, 38
290	290-SS-02	Grass area in back yard	12/04/02	7, pp. 37, 38
292	292-SS-01	Back yard in garden near hous	04/10/03	4, pp. 2, 11
296	296-SS-01	Back yard, near house	01/10/03	33, p. 5
296	296-SS-02	Middle of back yard, garden near fence	01/10/03	33, p. 5
296	296-SS-03	Back yard near barn	01/10/03	33, p. 5
302	302-SS-01	Front yard, grass	01/16/03	10, pp. 6, 27
302	302-SS-02	Side yard to the left of house, grass	01/16/03	10, pp. 6, 27
302	302-SS-03	Near pine tree in back yard, grass	01/16/03	10, pp. 6, 27
307	307-SS-01	Front yard near stairs to left of sidewalk	03/27/03	10, p. 35
307	307-SS-02	Half way back side yard, right side of walk	03/27/03	10, p. 35
307	307-SS-03	Back yard near bush	03/27/03	10, p. 35
324	324-SS-01	Back yard near house	04/10/03	4, p. 1; 10, p. 34
324	324-SS-02	Back yard near garage	04/10/03	4, p. 1; 10, p. 34
330	330-SS-01	Back yard next to patio	03/27/03	10, p. 35
330	330-SS-02	Back yard near Primrose Alley	03/27/03	10, p. 35
330	330-SS-03	Middle of back yard	03/27/03	10, p. 35
333	333-SS-01	Middle of front yard	04/15/03	32, p. 3

TABLE 4
RELEASE SOIL SAMPLING LOCATIONS
(Page 13 of 13)

Station ID	Sample ID	Sample Description	Sample Date	Reference
333	333-SS-02	Back yard near house	04/15/03	32, p. 3
333	333-SS-03	Back yard near alley	04/15/03	32, p. 3
340	340-SS-01	Side yard near bushes along S. 3rd Street	03/26/03	10, p. 32
340	340-SS-02	Side yard to left of driveway	03/26/03	10, p. 32
368	368-SS-01	Front yard, near hedges	12/04/02	7, pp. 37, 38
368	368-SS-03	Side yard on Arch Street	12/04/02	7, pp. 37, 38
370	370-SS-01	Side yard near sidewalk	03/25/03	10, pp. 2, 13
370	370-SS-02	Back yard near patio	03/25/03	10, pp. 2, 13
370	370-SS-03	Back yard near shed in old garden area	03/25/03	10, pp. 2, 13
370	370-SS-04	Back yard to side of sheds	03/25/03	10, pp. 2, 13
371	371-SS-01	Left side of front yard	03/26/03	10, p. 31
371	371-SS-02	Side yard, in garden	03/26/03	10, p. 31
371	371-SS-03	Center of back yard between house and pool	03/26/03	10, p. 31
376	376-SS-01	In small grassy area on right side of building	04/14/03	4, pp. 1, 7
387A	387-SS-01	In front of bushes in front yard	03/27/03	4, p. 10
387A	387-SS-02	Side yard near walk to Windsor Street	03/27/03	4, p. 10
387A	387-SS-03	Middle of back yard	03/27/03	4, p. 10
387A	387-SS-04	Back yard between shed and Windsor Street	03/27/03	4, p. 10
392	392-SS-01	Back yard, under swing set	03/26/03	10, p. 30
392	392-SS-02	Center of back yard near parking lot	03/26/03	10, p. 30
				10, p. 30
393	393-SS-01	Center of side yard	03/26/03	10, p. 30
393	393-SS-02	Back yard towards fence line	03/26/03	10, p. 30
393	393-SS-03	Back yard near parking lot	03/26/03	10, p. 30

Notes:
ID = Identification
SS = Surface soil
All sampling locations are shown on Figures 4 through 6 in Appendix A. The sampling locations on the figures were located using the Global Positioning System (GPS). In cases where the sampling log does not provide a figure showing the sampling locations, the locations can be identified and verified on Figures 4 through 6 in Appendix A.

TABLE 5
RELEASE SOIL LEAD CONCENTRATIONS
FIXED LABORATORY RESULTS

Sample ID	Lead Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
004-SS-02	639	9.42	15, pp. 1, 3, 19, 44; 34, pp. 1, 4, 25, 66
006-SS-04	2,250	9.42	15, pp. 1, 3, 20, 41; 34, pp. 1, 3, 7, 64
007-SS-02	1,390	9.42	15, pp. 1, 3, 21, 41; 34, pp. 1, 3, 8, 64
010-SS-01	2,960	9.42	15, pp. 1, 2, 13, 44; 34, pp. 1, 4, 26, 66
011-SS-01	3,600 L	2	38, pp. 9, 22
014-SS-01	35,500	37.9	15, pp. 1, 4, 25, 42; 34, pp. 1, 3, 22, 65
016-SS-03	2,200	9.42	15, pp. 1, 3, 23, 41; 34, pp. 1, 3, 11, 64
023-SS-02	1,570	9.42	15, pp. 1, 6, 34, 44; 34, pp. 1, 4, 28, 66
025-SS-04	1,670	9.42	15, pp. 1, 4, 26, 44; 34, pp. 1, 4, 29, 66
029-SS-02	639	9.42	15, pp. 1, 2, 16, 41; 34, pp. 1, 3, 12, 64
032-SS-02	610	9.42	15, pp. 1, 4, 27, 41; 34, pp. 1, 3, 13, 64
034-SS-03	1,260	9.42	15, pp. 1,3, 24, 41; 34, pp. 1, 3, 14, 64
044-SS-04	1,380	9.42	15, pp. 1, 4, 29, 41; 34, pp. 1, 3, 16, 64
047-SS-01	513	9.42	15, pp. 1, 4, 30, 44; 34, pp. 1, 4, 30, 66
057-SS-04	648	9.42	34, pp. 1, 17, 65
059-SS-01	674 L	2	38, pp. 9, 25
078-SS-04	9,390	9.5	16, pp. 1, 2, 9, 17
086-SS-03	697	9.49	16, pp. 1, 2, 11, 17; 34, pp. 1, 5, 44, 70
087-SS-02	942	9.47	16, pp. 1, 3,14, 17; 34, pp. 1, 6, 45, 70
099-SS-02	755 L	2	38, pp. 10, 28
103-SS-03	527	9.59	16, pp. 1, 2, 17; 34, pp. 1, 5, 46, 70
108-SS-03	555	9.42	14, pp. 1, 2, 13, 23
109-SS-03	1,490	9.42	14, pp. 1, 2, 11, 23; 34, pp. 1, 49, 70
115-SS-06	13,200	19	14, pp. 1, 2, 9, 24; 34, pp.1, 51, 71
122-SS-04	754	3.8	22, pp. 1, 4, 13; 35, pp. 1, 2, 8, 13
122-SS-05	1,050	3.8	22, pp. 1, 5, 13; 35, pp. 1, 2, 9, 13

TABLE 5
RELEASE SOIL LEAD CONCENTRATIONS
FIXED LABORATORY RESULTS

Sample ID	Lead Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
125-SS-02	1,150	9.48	16, pp. 1, 3, 16, 18; 34, pp. 1, 52, 71
143-SS-02	1,880	3.79	18, pp. 1, 5, 24, 31; 23, pp. 1, 10
147-SS-02	1,360	9.42	14, pp. 1, 3, 14, 24; 34, pp. 1, 53, 71
162-SS-01	1,750	3.77	18, pp. 1, 3, 13, 31; 23, pp. 1, 8
163-SS-01	1,760	3.8	22, pp. 1, 7, 13; 35, pp. 1, 2, 10, 13
167-SS-02	1,710	3.77	17, pp. 1, 4, 14
177-SS-02	713	3.79	18, pp. 1, 5, 31; 23, pp. 1, 11
184-SS-03	944	3.81	22, pp. 1, 8, 13; 35, pp. 1, 2, 11, 13
187-SS-01	1,600 L	2	38, pp. 10, 30
209-SS-01	730	9.5	14, pp. 1, 3, 18, 25; 34, pp. 1, 62, 72
214-SS-01	1,110	9.48	14, pp. 1, 3, 17, 25; 34, pp. 1, 63, 72
226-SS-02	692	3.81	19, pp. 1, 2, 15, 17; 21, p. 10
233-SS-01	1,340 L	2	38, pp. 10, 31
234-SS-02	1,320	3.77	18, pp. 1, 5, 25, 31; 23, pp. 1, 12
239-SS-03	1,400	3.81	21, pp. 1, 12
247-SS-01	944	3.81	19, pp. 1, 3, 7, 17; 21, pp. 1, 13
250-SS-03	1,050 L	2	38, pp. 11, 32
255-SS-01	773 L	2	38, pp. 11, 33
256-SS-01	1,550	3.8	19, pp. 1, 3, 8, 18; 21, pp. 1, 14
265-SS-01	609	3.8	18, pp. 1, 5, 26, 31; 23, pp. 1, 16
279-SS-01	1,190	3.8	19, pp. 1, 3, 9, 18; 21, pp. 1, 15
287-SS-01	1,670 L	2	38, pp. 11, 34
287-SS-03	704 L	2	38, pp. 11, 35
289-SS-01	1,890	3.79	18, pp. 1, 3, 14, 31; 23, pp. 1, 9
292-SS-01	1,090 L	2	38, pp. 11, 15
307-SS-03	801	3.79	18, pp. 1, 27, 31; 23, pp. 1, 17

TABLE 5
RELEASE SOIL LEAD CONCENTRATIONS
FIXED LABORATORY RESULTS

Sample ID	Lead Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
330-SS-03	637	3.77	18, pp. 1, 6, 28, 32; 23, pp. 1, 18
370-SS-03	1,480	3.77	18, pp. 1, 4, 16, 32; 23, pp. 1, 21
387-SS-02	824	3.77	18, pp. 1, 6, 29, 32; 23, pp. 1, 23
392-SS-01	1,610	3.8	18, pp. 1, 5, 23, 32; 23, pp. 1, 25

Notes:

ID	Identification
Conc.	Concentration
L	Estimated low
mg/kg	Milligrams per kilogram
SS	Surface soil

Concentrations with a "L" data qualifier are estimated low and are adjusted according to Reference 39, Exhibit 3, p. 8. The concentrations are estimated low because the holding times were exceeded (Ref. 38, p. 2).

Reference 38 provides the contract-required quantitation limit (CRQL).

TABLE 6
RELEASE SOIL LEAD CONCENTRATIONS
XRF RESULTS

Sample ID	Lead Conc. (mg/kg)	Standard Deviation	Adjusted Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
003-SS-01	6,508.80	130	6,378.80	50.00	13, p. 1; 15, pp. 1, 2
003-SS-02	3,568.00	83.6	3,484.40	50.00	13, p. 1; 15, pp. 1, 2
003-SS-03	1,708.80	56	1,652.80	50.00	13, p. 1; 15, pp. 1, 2
003-SS-04	1,180.00	45.5	1,134.50	50.00	13, p. 1; 15, pp. 1, 2
003-SS-05	1,300.00	46.9	1,253.10	50.00	13, p. 1; 15, pp. 1, 2
004-SS-01	5,008.00	110	4,898.00	50.00	13, p. 4; 15, pp. 1, 3
004-SS-02	662.00	32.7	629.30	50.00	13, p. 4; 15, pp. 1, 3
004-SS-03	41,190.00	670	40,520.00	50.00	13, p. 4; 15, pp. 1, 3
004-SS-04	11,795.00	200	11,595.00	50.00	13, p. 4; 15, pp. 1, 3
005-SS-01	8,979.00	160	8,819.00	50.00	13, p. 4; 15, pp. 1, 3
005-SS-02	12,499.00	200	12,299.00	50.00	13, p. 4; 15, pp. 1, 3
005-SS-03	17,690.00	290	17,400.00	50.00	13, p. 4; 15, pp. 1, 3
006-SS-01	6,048.00	110	5,938.00	50.00	13, p. 4; 15, pp. 1, 3
006-SS-02	3,189.00	77.4	3,111.60	50.00	13, p. 4; 15, pp. 1, 3
006-SS-03	5,158.00	110	5,048.00	50.00	13, p. 4; 15, pp. 1, 3
006-SS-04	2,280.00	65.2	2,214.80	50.00	13, p. 4; 15, pp. 1, 3
007-SS-01	4,598.00	96.2	4,501.80	50.00	13, p. 4; 15, pp. 1, 3
007-SS-02	1,260.00	47.9	1,212.10	50.00	13, p. 4; 15, pp. 1, 3
007-SS-03	3,907.00	81	3,826.00	50.00	13, p. 4; 15, pp. 1, 3
007-SS-04	1,550.00	54.1	1,495.90	50.00	13, p. 4; 15, pp. 1, 3
008-SS-01	3,379.00	82.9	3,296.10	50.00	13, p. 4; 15, pp. 1, 3
008-SS-02	3,080.00	77.7	3,002.30	50.00	13, p. 4; 15, pp. 1, 3
008-SS-03	3,738.00	88.5	3,649.50	50.00	13, p. 4; 15, pp. 1, 3
009-SS-01	16,294.00	260	16,034.00	50.00	13, p. 4; 15, pp. 1, 3
009-SS-02	6,675.00	130	6,545.00	50.00	13, p. 4; 15, pp. 1, 3
009-SS-03	90,982.00	1699.2	89,282.80	50.00	13, p. 4; 15, pp. 1, 3
010-SS-01	3,568.00	81.9	3,486.10	50.00	13, p. 1; 15, pp. 1, 2
010-SS-02	1,349.60	40.6	1,309.00	50.00	13, p. 1; 15, pp. 1, 2
010-SS-03	4,960.00	100	4,860.00	50.00	13, p. 1; 15, pp. 1, 2
010-SS-04	2,969.60	78.3	2,891.30	50.00	13, p. 1; 15, pp. 1, 2
011-SS-01	3,600.00	86.5	3,513.50	50.00	13, p. 1; 15, pp. 1, 2
011-SS-02	1,969.60	58.9	1,910.70	50.00	13, p. 1; 15, pp. 1, 2
011-SS-03	3,129.60	77	3,052.60	50.00	13, p. 1; 15, pp. 1, 2
014-SS-01	123,904.00	2299.2	121,604.80	50.00	37, pp. 88; 15, pp. 1, 4
014-SS-02	41,395.00	450	40,945.00	50.00	37, pp. 88; 15, pp. 1, 4
014-SS-03	173,978.00	3398.4	170,579.60	50.00	37, pp. 88; 15, pp. 1, 4

TABLE 6
RELEASE SOIL LEAD CONCENTRATIONS
XRF RESULTS

Sample ID	Lead Conc. (mg/kg)	Standard Deviation	Adjusted Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
016-SS-02	743.00	33.4	709.60	50.00	13, p. 4; 15, pp. 1, 3
016-SS-03	2,850.00	75.6	2,774.40	50.00	13, p. 4; 15, pp. 1, 3
018-SS-01	2,059.00	59	2,000.00	50.00	13, p. 4; 15, pp. 1, 3
018-SS-02	2,010.00	60.8	1,949.20	50.00	13, p. 4; 15, pp. 1, 3
018-SS-03	1,410.00	49.4	1,360.60	50.00	13, p. 4; 15, pp. 1, 3
023-SS-01	6,988.80	55.5	6,933.30	50.00	37, p. 95; 15, pp. 1, 6
023-SS-02	1,720.00	42.7	1,677.30	50.00	37, p. 95; 15, pp. 1, 6
023-SS-03	1,269.60	25.2	1,244.40	50.00	37, p. 95; 15, pp. 1, 6
023-SS-04	2,320.00	40.5	2,279.50	50.00	37, p. 95; 15, pp. 1, 6
024-SS-02	766.80	22.9	743.90	50.00	37, p. 95; 15, pp. 1, 6
024-SS-03	642.40	33.1	609.30	50.00	37, p. 95; 15, pp. 1, 6
025-SS-01	6,368.00	120	6,248.00	50.00	37, p. 88; 15, pp. 1, 4
025-SS-02	2,379.00	65.4	2,313.60	50.00	37, p. 88; 15, pp. 1, 4
025-SS-03	2,330.00	47.5	2,282.50	50.00	37, p. 88; 15, pp. 1, 4
025-SS-04	1,989.00	58.7	1,930.30	50.00	37, p. 88; 15, pp. 1, 4
026-SS-01	1,289.60	49.1	1,240.50	50.00	13, p. 2; 15, pp. 1, 2
026-SS-02	859.20	38.4	820.80	50.00	13, p. 2; 15, pp. 1, 2
026-SS-03	1,420.00	44.2	1,375.80	50.00	13, p. 2; 15, pp. 1, 2
026-SS-04	1,440.00	50	1,390.00	50.00	13, p. 2; 15, pp. 1, 2
027-SS-01	809.60	37.3	772.30	50.00	13, p. 2; 15, pp. 1, 2
027-SS-02	889.60	37.8	851.80	50.00	13, p. 2; 15, pp. 1, 2
027-SS-03	1,140.00	44.1	1,095.90	50.00	13, p. 2; 15, pp. 1, 2
029-SS-01	1,040.00	42.4	997.60	50.00	13, p. 2; 15, pp. 1, 2
029-SS-02	676.00	33.1	642.90	50.00	13, p. 2; 15, pp. 1, 2
031-SS-01	771.00	35.7	735.30	50.00	13, p. 4; 15, pp. 1, 3
031-SS-02	1,380.00	49.4	1,330.60	50.00	13, p. 4; 15, pp. 1, 3
032-SS-01	1,350.00	45.1	1,304.90	50.00	37, pp. 88; 15, pp. 1, 4
032-SS-02	698.00	33.2	664.80	50.00	37, pp. 88; 15, pp. 1, 4
032-SS-04	986.00	34.6	951.40	50.00	37, pp. 88; 15, pp. 1, 4
034-SS-01	2,229.00	65.1	2,163.90	50.00	13, p. 4; 15, pp. 1, 3
034-SS-02	2,290.00	55.5	2,234.50	50.00	13, p. 4; 15, pp. 1, 3
034-SS-03	1,410.00	47.3	1,362.70	50.00	13, p. 4; 15, pp. 1, 3
035-SS-01	1,180.00	40.9	1,139.10	50.00	37, pp. 88; 15, pp. 1, 4
035-SS-02	1,470.00	42.3	1,427.70	50.00	37, pp. 88; 15, pp. 1, 4
035-SS-03	1,939.00	59	1,880.00	50.00	37, pp. 88; 15, pp. 1, 4

TABLE 6
RELEASE SOIL LEAD CONCENTRATIONS
XRF RESULTS

Sample ID	Lead Conc. (mg/kg)	Standard Deviation	Adjusted Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
035-SS-04	997.00	37.2	959.80	50.00	37, pp. 88; 15, pp. 1, 4
035-SS-05	993.00	35.3	957.70	50.00	37, pp. 89; 15, pp. 1, 4
036-SS-02	952.00	35.7	916.30	50.00	13, p. 2; 15, pp. 1, 2
036-SS-03	1,149.60	45.1	1,104.50	50.00	13, p. 2: 15, pp. 1, 2
037-SS-03	753.20	35.3	717.90	50.00	37, p. 128; 14, pp. 1, 3
038-SS-02	1,739.00	54.6	1,684.40	50.00	13, p. 4; 15, pp, 1, 3
038-SS-03	2,000.00	61.1	1,938.90	50.00	13, p. 5; 15, pp. 1, 3
039-SS-01	973.00	37.6	935.40	50.00	37, p. 89; 15, pp. 1, 4
039-SS-02	1,080.00	35.1	1,044.90	50.00	37, p. 89; 15, pp. 1, 4
039-SS-03	5,978.00	77.4	5,900.60	50.00	37, p. 89; 15, pp. 1, 4
042-SS-01	4,979.20	100	4,879.20	50.00	13, p. 2; 15, pp. 1, 2
042-SS-02	3,188.80	78.7	3,110.10	50.00	13, p. 2; 15, pp. 1, 2
042-SS-03	1,769.60	53.5	1,716.10	50.00	13, p. 2; 15, pp. 1, 2
043-SS-01	2,680.00	66.1	2,613.90	50.00	37, p. 89; 15, pp. 1, 4
044-SS-01	2,160.00	49	2,111.00	50.00	37, p. 89; 15, pp. 1, 4
044-SS-02	1,560.00	35.8	1,524.20	50.00	37, p. 89; 15, pp. 1, 4
044-SS-03	2,050.00	46.7	2,003.30	50.00	37, p. 89; 15, pp. 1, 4
044-SS-04	1,650.00	40.7	1,609.30	50.00	37, p. 89; 15, pp. 1, 4
044-SS-05	1,460.00	48.9	1,411.10	50.00	37, p. 89; 15, pp. 1, 4
044-SS-06	618.00	32	586.00	50.00	37, p. 89; 15, pp. 1, 4
047-SS-01	572.00	26.7	545.30	50.00	37, p. 90; 15, pp. 1, 4
047-SS-02	1,020.00	37.6	982.40	50.00	37, p. 90; 15, pp. 1, 4
054-SS-01	750.00	27.1	722.90	50.00	37, p. 90; 15, pp. 1, 4
057-SS-02	1,009.60	25.4	984.20	50.00	37, p. 95; 15, pp. 1, 6
057-SS-03	1,149.60	40.7	1,108.90	50.00	37, p. 95; 15, pp. 1, 6
057-SS-04	739.60	18.5	721.10	50.00	37, p. 95; 15, pp. 1, 6
059-SS-01	735.00	32.4	702.60	50.00	37, p. 91; 15, pp. 1, 5
059-SS-03	588.00	31.3	556.70	50.00	37, p. 91; 15, pp. 1, 5
066-SS-01	8,627.00	150	8,477.00	50.00	37, p. 91; 15, pp. 1, 5
066-SS-02	4,499.00	93.5	4,405.50	50.00	37, p. 91; 15, pp. 1, 5
067-SS-01	12,096.00	100	11,996.00	50.00	37, p. 95; 15, pp. 1, 6
067-SS-02	6,537.60	110	6,427.60	50.00	37, p. 95; 15, pp. 1, 6

TABLE 6
RELEASE SOIL LEAD CONCENTRATIONS
XRF RESULTS

Sample ID	Lead Conc. (mg/kg)	Standard Deviation	Adjusted Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
069-SS-01	1,140.00	43.6	1,096.40	50.00	37, p. 91; 15, pp. 1, 5
069-SS-02	1,010.00	39.3	970.70	50.00	37, p. 91; 15, pp. 1, 5
069-SS-03	2,160.00	63.3	2,096.70	50.00	37, p. 91; 15, pp. 1, 5
069-SS-04	2,949.00	77.7	2,871.30	50.00	37, p. 91; 15, pp. 1, 5
070-SS-01	22,092.80	330	21,762.80	50.00	3, p. 42; 20, pp. 1, 2
070-SS-02	2,068.80	57.9	2,010.90	50.00	3, p. 42; 20, pp. 1, 2
070-SS-03	2,499.20	64.2	2,435.00	50.00	3, p. 42; 20, pp. 1, 2
070-SS-04	6,848.00	140	6,708.00	50.00	3, p. 42; 20, pp. 1, 2
075-SS-01	1,060.00	34	1,026.00	50.00	3, p. 44; 20, pp. 1, 2
075-SS-02	1,280.00	41.7	1,238.30	50.00	3, p. 44; 20, pp. 1, 2
075-SS-03	2,440.00	70.4	2,369.60	50.00	3, p. 45; 20, pp. 1, 2
077-SS-01	722.40	32.9	689.50	50.00	37, p. 101; 15, pp. 1, 7
078-SS-01	20,390.00	330	20,060.00	50.00	37, p. 108; 16, pp. 1, 2
078-SS-02	47,385.60	780	46,605.60	50.00	37, p. 108; 16, pp. 1, 2
078-SS-03	9,548.80	170	9,378.80	50.00	37, p. 108; 16, pp. 1, 2
078-SS-04	13,094.40	190	12,904.40	50.00	37, p. 108; 16, pp. 1, 2
079-SS-01	1,729.60	55	1,674.60	50.00	37, p. 111; 16, pp. 1, 3
079-SS-02	1,429.60	50.3	1,379.30	50.00	37, p. 111; 16, pp. 1, 3
079-SS-03	1,720.00	55.8	1,664.20	50.00	37, p. 111; 16, pp. 1, 3
080-SS-02	7,059.00	120	6,939.00	50.00	37, p. 101; 15, pp. 1, 7
080-SS-03	1,469.60	46.6	1,423.00	50.00	37, p. 101; 15, pp. 1, 7
080-SS-04	1,720.00	43.7	1,676.30	50.00	37, p. 101; 15, pp. 1, 7
080-SS-05	2,348.80	62.5	2,286.30	50.00	37, p. 101; 15, pp. 1, 7
081-SS-05	2,369.60	85.1	2,284.50	50.00	37, p. 111; 16, pp. 1, 3
082-SS-01	6,656.00	120	6,536.00	50.00	37, p. 108; 16, pp. 1, 2
082-SS-02	6,000.00	72.5	5,927.50	50.00	37, p. 108; 16, pp. 1, 2
082-SS-03	8,659.20	160	8,499.20	50.00	37, p. 108; 16, pp. 1, 2
082-SS-04	7,475.20	150	7,325.20	50.00	37, p. 108; 16, pp. 1, 2
084-SS-01	69,478.40	1300	68,178.40	50.00	37, p. 125; 14, pp. 1, 3
084-SS-02	156,979.20	3299	153,680.20	50.00	37, p. 125; 14, pp. 1, 3
084-SS-03	128,921.60	2800	126,121.60	50.00	37, p. 125; 14, pp. 1, 3
084-SS-04	13,196.80	220	12,976.80	50.00	37, p. 125; 14, pp. 1, 3
086-SS-01	1,069.60	37.3	1,032.30	50.00	34, p. 70; 16, pp. 1, 2
086-SS-02	1,400.00	51	1,349.00	50.00	34, p. 70; 16, pp. 1, 2
086-SS-03	852.80	38.6	814.20	50.00	34, p. 70; 16, pp. 1, 2
086-SS-04	700.00	32.1	667.90	50.00	34, p. 70; 16, pp. 1, 2

TABLE 6
RELEASE SOIL LEAD CONCENTRATIONS
XRF RESULTS

Sample ID	Lead Conc. (mg/kg)	Standard Deviation	Adjusted Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
087-SS-01	2,600.00	72.2	2,527.80	50.00	37, p. 111; 16, pp. 1, 3
087-SS-02	1,289.60	38.6	1,251.00	50.00	37, p. 111; 16, pp. 1, 3
087-SS-03	3,558.40	84	3,474.40	50.00	37, p. 112; 16, pp. 1, 3
090-SS-01	11,699.20	200	11,499.20	50.00	37, p. 102; 15, pp. 1, 7
090-SS-02	3,398.40	75.1	3,323.30	50.00	37, p. 102; 15, pp. 1, 7
098-SS-01	683.20	32.6	650.60	50.00	37, pp. 112, 120; 16, pp. 1, 3
098-SS-02	1,300.00	47.4	1,252.60	50.00	37, p. 120; 16, pp. 1, 3
098-SS-03	1,120.00	45.4	1,074.60	50.00	37, p. 120; 16, pp. 1, 3
099-SS-01	624.00	32	592.00	50.00	37, p. 125; 14, pp. 1, 2
099-SS-02	808.40	31.8	776.60	50.00	37, p. 125; 14, pp. 1, 2
099-SS-03	664.40	32.2	632.20	50.00	37, p. 125; 14, pp. 1, 2
099-SS-04	691.60	33.7	657.90	50.00	37, p. 125; 14, pp. 1, 2
099-SS-05	853.60	36.3	817.30	50.00	37, p. 125; 14, pp. 1, 2
100-SS-01	2,859.20	72.7	2,786.50	50.00	37, p. 109; 16, pp. 1, 2
100-SS-02	2,819.20	72.7	2,746.50	50.00	37, p. 109; 16, pp. 1, 2
100-SS-03	1,748.80	55.3	1,693.50	50.00	37, p. 109; 16, pp. 1, 2
100-SS-04	1,389.60	50.5	1,339.10	50.00	37, p. 109; 16, pp. 1, 2
100-SS-05	1,939.20	60.9	1,878.30	50.00	37, p. 109; 16, pp. 1, 2
100-SS-06	1,520.00	51.2	1,468.80	50.00	37, p. 109; 16, pp. 1, 2
102-SS-02	634.40	31.9	602.50	50.00	37, p. 103; 15, pp. 1, 7
102-SS-04	744.80	35.3	709.50	50.00	37, p. 103; 15, pp. 1, 7
103-SS-01	902.40	39	863.40	50.00	37, p. 109; 16, pp. 1, 2
103-SS-02	710.40	34.3	676.10	50.00	37, p. 109; 16, pp. 1, 2
103-SS-03	625.60	33.1	592.50	50.00	37, p. 109; 16, pp. 1, 2
103-SS-04	919.20	38.2	881.00	50.00	37, p. 109; 16, pp. 1, 2
104-SS-01	5,977.60	110	5,867.60	50.00	37, p. 119; 14, pp. 1, 2
104-SS-02	15,488.00	270	15,218.00	50.00	37, p. 119; 14, pp. 1, 2
104-SS-03	9,107.20	170	8,937.20	50.00	37, p. 120; 14, pp. 1, 2
104-SS-04	23,296.00	420	22,876.00	50.00	37, p. 120; 14, pp. 1, 2
106-SS-01	1,640.00	51.8	1,588.20	50.00	37, p. 124; 14, pp. 1, 2
106-SS-02	1,220.00	41.6	1,178.40	50.00	37, p. 124; 14, pp. 1, 2
106-SS-03	1,908.80	54.6	1,854.20	50.00	37, p. 124; 14, pp. 1, 2
108-SS-01	766.00	36.8	729.20	50.00	37, p. 125; 14, pp. 1, 2
108-SS-03	663.60	28.5	635.10	50.00	37, p. 125; 14, pp. 1, 2
108-SS-04	606.40	32	574.40	50.00	37, p. 125; 14, pp. 1, 2

TABLE 6
RELEASE SOIL LEAD CONCENTRATIONS
XRF RESULTS

Sample ID	Lead Conc. (mg/kg)	Standard Deviation	Adjusted Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
109-SS-01	985.60	41.3	944.30	50.00	37, p. 119; 14, pp. 1, 2
109-SS-02	926.40	37.2	889.20	50.00	37, p. 119; 14, pp. 1, 2
109-SS-03	1,828.80	57.4	1,771.40	50.00	37, p. 119; 14, pp. 1, 2
109-SS-04	1,040.00	42.2	997.80	50.00	37, p. 119; 14, pp. 1, 2
110-SS-01	2,659.20	65.2	2,594.00	50.00	37, p. 126; 14, pp. 1, 3
110-SS-02	1,349.60	47.6	1,302.00	50.00	37, p. 126; 14, pp. 1, 3
110-SS-03	1,160.00	45.1	1,114.90	50.00	37, p. 126; 14, pp. 1, 3
110-SS-04	2,520.00	63.5	2,456.50	50.00	37, p. 126; 14, pp. 1, 3
110-SS-05	18,099.20	290	17,809.20	50.00	37, p. 126; 14, pp. 1, 3
111-SS-01	1,520.00	46.3	1,473.70	50.00	37, p. 115; 16, pp. 1, 3
111-SS-02	1,880.00	60.3	1,819.70	50.00	37, p. 115; 16, pp. 1, 3
111-SS-03	1,800.00	58.3	1,741.70		37, p. 115; 16, pp. 1, 3
114-SS-01	1,109.60	42.7	1,066.90	50.00	37, p. 116; 16, pp. 1, 3
114-SS-04	732.00	36.5	695.50	50.00	37, p. 116; 16, pp. 1, 3
114-SS-05	2,739.20	66.9	2,672.30	50.00	37, p. 118; 14, pp. 1, 2
115-SS-01	3,289.60	78.5	3,211.10	50.00	37, p. 118; 14, pp. 1, 2
115-SS-02	1,309.60	46.9	1,262.70	50.00	37, p. 118; 14, pp. 1, 2
115-SS-03	1,520.00	49.6	1,470.40	50.00	37, p. 118; 14, pp. 1, 2
115-SS-04	1,380.00	49.1	1,330.90	50.00	37, p. 118; 14, pp. 1, 2
115-SS-05	1,789.20	52.1	1,737.10	50.00	37, p. 118; 14, pp. 1, 2
115-SS-06	18,995.20	330	18,665.20	50.00	37, p. 118; 14, pp. 1, 2
121-SS-01	3,369.60	81.8	3,287.80	50.00	37, p. 118; 14, pp. 1, 2
121-SS-02	3,769.60	68.5	3,701.10	50.00	37, p. 118; 14, pp. 1, 2
121-SS-03	2,028.80	54.7	1,974.10	50.00	37, p. 118; 14, pp. 1, 2
121-SS-04	1,589.60	52.5	1,537.10	50.00	37, p. 118; 14, pp. 1, 2
123-SS-01	1,560.00	130	1,430.00	50.00	37, p. 118; 14, pp. 1, 2
123-SS-02	867.20	36.5	830.70	50.00	37, p. 118; 14, pp. 1, 2
125-SS-01	779.60	32.8	746.80	50.00	37, p. 116; 16, pp. 1, 3
125-SS-02	1,289.60	47	1,242.60	50.00	37, p. 116; 16, pp. 1, 3
125-SS-03	598.40	32.7	565.70	50.00	37, p. 116; 16, pp. 1, 3
125-SS-04	583.60	26.9	556.70	50.00	37, p. 116; 16, pp. 1, 3
125-SS-05	1,189.60	46.1	1,143.50	50.00	37, p. 116; 16, pp. 1, 3
125-SS-06	1,120.00	42.8	1,077.20	50.00	37, p. 116; 16, pp. 1, 3
125-SS-07	1,009.60	42.6	967.00	50.00	37, p. 116; 16, pp. 1, 3
126-SS-01	3,548.80	84	3,464.80	50.00	37, p. 102; 15, pp. 1, 7
126-SS-02	3,388.80	83.4	3,305.40	50.00	37, p. 102; 15, pp. 1, 7
126-SS-03	6,240.00	120	6,120.00	50.00	37, p. 102; 15, pp. 1, 7

TABLE 6
RELEASE SOIL LEAD CONCENTRATIONS
XRF RESULTS

Sample ID	Lead Conc. (mg/kg)	Standard Deviation	Adjusted Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
128-SS-01	1,849.60	57.1	1,792.50	50.00	3, p. 45; 20, pp. 1, 2
128-SS-02	699.20	32.8	666.40	50.00	3, p. 45; 20, pp. 1, 2
128-SS-03	596.80	32	564.80	50.00	3, p. 45; 20, pp. 1, 2
132-SS-01	1,069.60	38.2	1,031.40	50.00	3, p. 20; 18, pp. 1, 3
132-SS-02	36,684.80	580	36,104.80	50.00	3, p. 20; 18, pp. 1, 3
134-SS-01	2,339.20	66.6	2,272.60	50.00	3, p. 20; 18, pp. 1, 3
134-SS-02	2,280.00	63.9	2,216.10	50.00	3, p. 20; 18, pp. 1, 3
134-SS-03	1,880.00	58	1,822.00	50.00	3, p. 20; 18, pp. 1, 3
134-SS-04	2,129.60	63.7	2,065.90	50.00	3, p. 20; 18, pp. 1, 3
136-SS-01	1,920.00	46.5	1,873.50	50.00	3, p. 32; 19, pp. 1, 2
138-SS-01	660.80	33.7	627.10	50.00	3, p. 45; 20, pp. 1, 2
138-SS-02	691.60	33.5	658.10	50.00	3, p. 45; 20, pp. 1, 2
139-SS-01	1,369.60	51.7	1,317.90	50.00	3, p. 33; 19, pp. 1, 2
143-SS-01	2,068.80	60.3	2,008.50	50.00	3, p. 25; 18, pp. 1, 5
143-SS-02	1,960.00	58.4	1,901.60	50.00	3, p. 25; 18, pp. 1, 5
143-SS-03	1,460.00	49.5	1,410.50	50.00	3, p. 25; 18, pp. 1, 5
146-SS-01	1,739.20	54.8	1,684.40	50.00	3, p. 45; 20, pp. 1, 2
146-SS-02	724.40	35.1	689.30	50.00	3, p. 45; 20, pp. 1, 2
147-SS-01	2,489.60	67.9	2,421.70	50.00	37, pp. 113, 126; 14, pp. 1, 3
147-SS-02	1,788.80	58.3	1,730.50	50.00	37, pp. 113, 126; 14, pp. 1, 3
147-SS-03	820.00	35.2	784.80	50.00	37, pp. 113, 126; 14, pp. 1, 3
155-SS-02	1,620.00	54.5	1,565.50	50.00	3, p. 4; 60, p. 3
156-SS-02	598.80	32.2	566.60	50.00	3, p. 33; 19, pp. 1, 2
156-SS-03	549.60	30.1	519.50	50.00	3, p. 33; 19, pp. 1, 2
161-SS-01	943.20	40.9	902.30	50.00	3, p. 33; 19, pp. 1, 2
161-SS-02	1,389.60	50.4	1,339.20	50.00	3, p. 33; 19, pp. 1, 2
162-SS-01	1,988.80	59.6	1,929.20	50.00	3, p. 20; 18, pp. 1,3
162-SS-02	2,828.80	76.9	2,751.90	50.00	3, p. 20; 18, pp. 1,3
162-SS-03	2,299.20	66.7	2,232.50	50.00	3, p. 20; 18, pp. 1,3
162-SS-04	3,318.40	81.5	3,236.90		3, p. 20; 18, pp. 1,3
164-SS-01	4,928.00	100	4,828.00	50.00	3, p. 25; 18, pp. 1, 5
164-SS-02	1,560.00	49.3	1,510.70	50.00	3, p. 25; 18, pp. 1, 5

TABLE 6
RELEASE SOIL LEAD CONCENTRATIONS
XRF RESULTS

Sample ID	Lead Conc. (mg/kg)	Standard Deviation	Adjusted Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
164-SS-03	687.60	34.1	653.50	50.00	3, p. 25; 18, pp. 1, 5
164-SS-04	1,300.00	46.9	1,253.10	50.00	3, p. 25; 18, pp. 1, 5
166-SS-01	702.00	31.8	670.20	50.00	3, p. 33; 19, pp. 1, 2
166-SS-02	1,109.60	44.2	1,065.40	50.00	3, p. 33; 19, pp. 1, 2
166-SS-03	985.60	40.4	945.20	50.00	3, p. 33; 19, pp. 1, 2
167-SS-01	1,640.00	30.1	1,609.90	50.00	3, p. 13; 17, pp. 1, 4
167-SS-02	1,899.20	61.2	1,838.00	50.00	3, p. 13; 17, pp. 1, 4
167-SS-03	1,480.00	51.5	1,428.50	50.00	3, p. 13; 17, pp. 1, 4
167-SS-04	1,209.60	40	1,169.60	50.00	3, p. 13; 17, pp. 1, 4
169-SS-01	1,190.00	46	1,144.00	50.00	3, p. 23
169-SS-02	1,220.00	46	1,174.00	50.00	3, p. 23
176-SS-01	1,840.00	60.5	1,779.50	50.00	3, p. 4; 60, p. 3
176-SS-02	1,569.60	55.3	1,514.30	50.00	3, p. 4; 60, p. 3
177-SS-01	1,209.60	42.8	1,166.80	50.00	3, p. 25; 18, pp. 1, 5
177-SS-02	688.00	32.7	655.30	50.00	3, p. 25; 18, pp. 1, 5
179-SS-01	608.00	30.5	577.50	50.00	3, p. 45; 20, pp. 1, 2
179-SS-02	971.20	41.1	930.10	50.00	3, p. 45; 20, pp. 1, 2
179-SS-04	559.20	27.2	532.00	50.00	3, p. 45; 20, pp. 1, 2
183-SS-01	562.80	28.8	534.00	50.00	3, p. 26; 18, pp. 1, 5
184-SS-01	1,700.00	56	1,644.00	50.00	3, p. 38
184-SS-02	1,300.00	47	1,253.00	50.00	3, p. 38
184-SS-03	910.00	40	870.00	50.00	3, p. 38
185-SS-01	12,896.00	220	12,676.00	50.00	3, p. 20; 18, pp. 1, 3
185-SS-02	16,192.00	240	15,952.00	50.00	3, p. 20; 18, pp. 1, 3
186-SS-02	912.00	40.5	871.50	50.00	3, p. 34; 19, pp. 1, 3
189-SS-01	6,560.00	120	6,440.00	50.00	37, p. 126; 14, pp. 1, 3
189-SS-02	2,320.00	66.9	2,253.10	50.00	37, p. 126; 14, pp. 1, 3
191-SS-01	4,038.40	90.2	3,948.20	50.00	3, p. 45; 20, pp. 1, 2
191-SS-02	6,099.20	120	5,979.20	50.00	3, p. 45; 20, pp. 1, 2
191-SS-03	3,427.20	83.1	3,344.10	50.00	3, p. 45; 20, pp. 1, 2
191-SS-04	1,929.60	61.1	1,868.50	50.00	3, p. 45; 20, pp. 1, 2
194-SS-01	946.40	28.7	917.70	50.00	3, p. 14; 17, pp. 1, 5
194-SS-03	671.20	23.3	647.90	50.00	3, p. 14; 17, pp. 1, 5

TABLE 6
RELEASE SOIL LEAD CONCENTRATIONS
XRF RESULTS

Sample ID	Lead Conc. (mg/kg)	Standard Deviation	Adjusted Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
194-SS-05	811.20	34.3	776.90	50.00	3, p. 14; 17, pp. 1, 5
200-SS-01	926.40	40.5	885.90	50.00	3, p. 15; 17, pp. 1, 5
200-SS-05	726.00	30.1	695.90	50.00	3, p. 15; 17, pp. 1, 5
201-SS-04	686.00	29.7	656.30	50.00	3, p. 34; 19, pp. 1, 2
202-SS-01	59,699.20	1000	58,699.20	50.00	3, p. 23; 18, pp. 1, 4
202-SS-02	10,099.20	170	9,929.20	50.00	3, p. 23; 18, pp. 1, 4
203-SS-01	1,760.00	55.1	1,704.90	50.00	37, p. 128;14, pp. 1, 3
203-SS-02	904.80	35.8	869.00	50.00	37, p. 128;14, pp. 1, 3
203-SS-03	1,000.00	36.8	963.20	50.00	37, p. 128;14, pp. 1, 3
209-SS-01	895.20	34.3	860.90	50.00	37, p. 129; 14, pp. 1, 4
209-SS-02	602.40	28.8	573.60	50.00	37, p. 129; 14, pp. 1, 4
214-SS-01	1,269.60	42.3	1,227.30	50.00	37, p. 128; 14, pp. 1, 3
214-SS-02	937.60	35.5	902.10	50.00	37, p. 128; 14, pp. 1, 3
218-SS-01	2,720.00	68	2,652.00	50.00	37, p. 129; 14, pp. 1, 3
218-SS-02	17,088.00	280	16,808.00	50.00	37, p. 129; 14, pp. 1, 4
218-SS-03	3,968.00	84	3,884.00	50.00	37, p. 129; 14, pp. 1, 4
220-SS-01	716.00	34.8	681.20	50.00	3, p. 20; 18, pp. 1,3
220-SS-02	604.80	26.1	578.70	50.00	3, p. 20; 18, pp. 1,3
225-SS-02	603.20	31.5	571.70	50.00	3, p. 45; 20, pp. 1, 3
225-SS-03	606.80	30	576.80	50.00	3, p. 46; 20, pp. 1, 3
226-SS-01	812.40	37.2	775.20	50.00	3, p. 34; 19, pp. 1, 2
226-SS-02	700.00	29.2	670.80	50.00	3, p. 34; 19, pp. 1, 2
233-SS-01	1,420.00	50.3	1,369.70	50.00	3, p. 34; 19, pp. 1, 2
233-SS-02	684.80	32.1	652.70	50.00	3, p. 34; 19, pp. 1, 2
234-SS-01	1,349.60	45.1	1,304.50	50.00	3, p. 26; 18, pp. 1, 5
234-SS-02	1,449.60	44.5	1,405.10	50.00	3, p. 26; 18, pp. 1, 5
234-SS-03	528.40	29.7	498.70	50.00	3, p. 26; 18, pp. 1, 5
244-SS-01	1,629.60	49.4	1,580.20	50.00	3, p. 23; 18, pp. 1, 4
244-SS-02	854.40	36	818.40	50.00	3, p. 23; 18, pp. 1, 4
244-SS-04	744.00	33.6	710.40	50.00	3, p. 23; 18, pp. 1, 4
247-SS-01	996.80	40.8	956.00	50.00	3, p. 34; 19, pp. 1, 3
247-SS-02	578.80	27.5	551.30	50.00	3, p. 34; 19, pp. 1, 3

TABLE 6
RELEASE SOIL LEAD CONCENTRATIONS
XRF RESULTS

Sample ID	Lead Conc. (mg/kg)	Standard Deviation	Adjusted Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
248-SS-01	2,339.20	63.6	2,275.60	50.00	3, p. 26; 18, pp. 1, 5
250-SS-01	726.40	34.2	692.20	50.00	3, p. 23; 18, pp. 1 4
250-SS-02	698.80	32.1	666.70	50.00	3, p. 23; 18, pp. 1 4
250-SS-03	1,089.60	38.1	1,051.50	50.00	3, p. 23; 18, pp. 1 4
251-SS-01	5,859.60	98	5,761.60	50.00	3, p. 13; 17, pp. 1, 4
251-SS-02	20,595.20	290	20,305.20	50.00	3, p. 13; 17, pp. 1, 4
251-SS-03	12,595.20	140	12,455.20	50.00	3, p. 13; 17, pp. 1, 4
253-SS-01	5,808.00	120	5,688.00	50.00	3, p. 16; 17, pp. 1, 5
253-SS-02	4,278.40	100	4,178.40	50.00	3, p. 16; 17, pp. 1, 5
253-SS-03	12,896.00	220	12,676.00	50.00	3, p. 16; 17, pp. 1, 5
256-SS-01	1,590.00	50	1,540.00	50.00	3, p. 34; 19, pp. 1, 3
256-SS-02	783.20	37.2	746.00	50.00	3, p. 34; 19, pp. 1, 3
262-SS-01	11,290.60	44.7	11,245.90	50.00	3, p. 4; 60, p. 3
262-SS-02	864.00	38.6	825.40	50.00	3, p. 4; 60, p. 3
262-SS-03	1,269.60	46.7	1,222.90	50.00	3, p. 4; 60, p. 3
262-SS-04	1,109.60	44.1	1,065.50	50.00	3, p. 4; 60, p. 3
264-SS-01	1,290.00	44	1,246.00	50.00	3, p. 26; 18, pp. 1, 5
264-SS-02	1,320.00	47	1,273.00	50.00	3, p. 26; 18, pp. 1, 5
264-SS-03	848.80	34.1	814.70	50.00	3, p. 26; 18, pp. 1, 5
265-SS-01	614.80	30	584.80	50.00	3, p. 26; 18, pp. 1, 5
265-SS-02	685.20	31.6	653.60	50.00	3, p. 26; 18, pp. 1, 5
265-SS-03	4,467.20	95.5	4,371.70	50.00	3, p. 26; 18, pp. 1, 5
271-SS-01	11,897.60	180	11,717.60	50.00	37, p. 129; 14, pp. 1, 3
271-SS-02	4,720.00	97.7	4,622.30	50.00	37, p. 129; 14, pp. 1, 3
271-SS-03	1,080.00	39.4	1,040.60	50.00	37, p. 129; 14, pp. 1, 3
271-SS-04	7,008.00	120	6,888.00	50.00	37, p. 129; 14, pp. 1, 3
271-SS-05	8,697.60	150	8,547.60	50.00	37, p. 129; 14, pp. 1, 3
271-SS-06	9,465.60	140	9,325.60	50.00	37, p. 129; 14, pp. 1, 3
279-SS-01	1,229.60	46.2	1,183.40	50.00	3, p. 35; 19, pp. 1, 3
279-SS-03	636.80	32.8	604.00	50.00	3, p. 35; 19, pp. 1, 3
283-SS-01	1,140.00	41.5	1,098.50	50.00	3, p. 35; 19, pp. 1, 3
283-SS-03	1,009.60	43.3	966.30	50.00	3, p. 36; 19, pp. 1, 3
289-SS-01	1,939.20	60.9	1,878.30	50.00	3, p. 20; 18, pp. 1, 3
289-SS-02	14,489.60	220	14,269.60	50.00	3, p. 20; 18, pp. 1, 3

TABLE 6
RELEASE SOIL LEAD CONCENTRATIONS
XRF RESULTS

Sample ID	Lead Conc. (mg/kg)	Standard Deviation	Adjusted Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
289-SS-03	128,921.60	2499.2	126,422.40	50.00	3, p. 21; 18, pp. 1, 3
290-SS-01	1,819.20	55.8	1,763.40	50.00	37, p. 130; 14, pp. 1, 4
290-SS-02	708.80	34.5	674.30	50.00	37, p. 130; 14, pp. 1, 4
296-SS-01	1,369.60	45.3	1,324.30	50.00	3, p. 9; 17, pp. 1, 3
296-SS-02	887.20	37.4	849.80	50.00	3, p. 9; 17, pp. 1, 3
296-SS-03	1,739.20	54.8	1,684.40	50.00	3, p. 9; 17, pp. 1, 3
302-SS-01	691.20	35.2	656.00	50.00	3, p. 15; 17, pp. 1, 5
302-SS-02	580.00	30.4	549.60	50.00	3, p. 15; 17, pp. 1, 5
302-SS-03	613.20	32.8	580.40	50.00	3, p. 15; 17, pp. 1, 5
307-SS-01	2,089.60	58.5	2,031.10	50.00	3, p. 26; 18, pp. 1, 5
307-SS-02	1,420.00	33.6	1,386.40	50.00	3, p. 26; 18, pp. 1, 5
307-SS-03	836.00	38.1	797.90	50.00	3, p. 26; 18, pp. 1, 5
324-SS-01	892.00	36.4	855.60	50.00	3, p. 36; 19, pp. 1, 3
324-SS-02	1,689.60	55.8	1,633.80	50.00	3, p. 36; 19, pp. 1, 3
329-SS-02	2,129.60	63.6	2,066.00	50.00	3, p. 36; 19, pp. 1, 3
330-SS-01	848.00	38.2	809.80	50.00	3, p. 27; 18, pp. 1, 5
330-SS-02	709.20	34.8	674.40	50.00	3, p. 27; 18, pp. 1, 5
330-SS-03	690.80	34.6	656.20	50.00	3, p. 27; 18, pp. 1, 5
333-SS-01	981.60	40.5	941.10	50.00	3, p. 36; 19, pp. 1, 3
333-SS-02	738.40	33	705.40	50.00	3, p. 36; 19, pp. 1, 3
333-SS-03	1,080.00	38.7	1,041.30	50.00	3, p. 36; 19, pp. 1, 3
340-SS-01	3,120.00	77.9	3,042.10	50.00	3, p. 23; 18, pp. 1, 4
340-SS-02	4,688.00	96.5	4,591.50	50.00	3, p. 23; 18, pp. 1, 4
368-SS-01	564.40	25	539.40	50.00	37, p. 130; 14, pp. 1, 4
368-SS-03	552.00	29.4	522.60	50.00	37, p. 130; 14, pp. 1, 4
370-SS-01	5,548.80	120	5,428.80	50.00	3, p. 22; 18, pp. 1, 4
370-SS-02	2,419.20	66.9	2,352.30	50.00	3, p. 22; 18, pp. 1, 4
370-SS-03	1,560.00	52	1,508.00	50.00	3, p. 22; 18, pp. 1, 4
370-SS-04	2,809.60	67.7	2,741.90	50.00	3, p. 22; 18, pp. 1, 4
371-SS-01	6,249.60	120	6,129.60	50.00	3, p. 24; 18, pp. 1, 5
371-SS-02	5,600.00	110	5,490.00	50.00	3, p. 24; 18, pp. 1, 5
371-SS-03	1,800.00	54.9	1,745.10	50.00	3, p. 24; 18, pp. 1, 5
376-SS-01	671.20	33.3	637.90	50.00	3, p. 37; 35, p. 2

TABLE 6
RELEASE SOIL LEAD CONCENTRATIONS
XRF RESULTS
(Page 12 of 12)

Sample ID	Lead Conc. (mg/kg)	Standard Deviation	Adjusted Conc. (mg/kg)	Detection Limit (mg/kg)	Reference
387-SS-01	1,779.20	56.7	1,722.50	50.00	3, p. 27; 18, pp. 1, 6
387-SS-02	860.80	38	822.80	50.00	3, p. 27; 18, pp. 1, 6
387-SS-03	1,060.00	41.8	1,018.20	50.00	3, p. 27; 18, pp. 1, 6
387-SS-04	1,180.00	47	1,133.00	50.00	3, p. 27; 18, pp. 1, 6
392-SS-01	1,729.60	51.6	1,678.00	50.00	3, p. 24; 18, pp. 1, 5
392-SS-02	2,059.20	56.9	2,002.30	50.00	3, p. 24; 18, pp. 1, 5
393-SS-01	4,057.60	92	3,965.60	50.00	3, p. 24; 18, pp. 1, 5
393-SS-02	2,960.00	75.7	2,884.30	50.00	3, p. 24; 18, pp. 1, 5
393-SS-03	1,889.60	58.1	1,831.50	50.00	3, p. 24; 18, pp. 1, 5

Notes:
ID = Identification
Conc. = Concentration
XRF = X-ray fluorescence
mg/kg = Milligrams per kilogram
SS = Surface soil
The lead concentrations in the XRF logbooks (References 3, 13, 36, and 37) differ from the lead concentrations reported in the data validation reports (References 14 through 20, and 34) because the concentrations entered in the logbook were rounded off from the XRF instrument and the lead concentrations presented in the data validation reports were taken from the XRF data printout (Ref. 42, p. 2).